BCPROGRESSBOARD

WORKING TOGETHER TO IMPROVE PERFORMANCE: PREPARING BC'S PUBLIC EDUCATION SYSTEM FOR THE FUTURE

A Discussion Paper Prepared by
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for the:

BC Progress Board

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News Release
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BC Progress Board Releases Discussion Paper on Public Education in British Columbia

Vancouver, BC – The BC Progress Board released a discussion paper today on public education in British Columbia. The paper, *"Working Together to Improve Performance: Preparing BC's Public Education System for the Future"*, examines BC's public education system and provides six positive suggestions for change. The report was prepared for the Progress Board by Dr. Charles Jago, CM, former President of the University of Northern British Columbia.

"From its inception, the Progress Board has recognized the importance of the provincial education system in building a civil society and providing a solid foundation for British Columbia's economy", stated David Black, Chair of the BC Progress Board and President of Victoria-based Black Press Ltd. "Though BC's public education system has positive results overall, the six year completion rate appears to have stalled and there is a high degree of variability in student outcomes across the province", Black noted.

- In 2004/05, the six year high school completion rate in British Columbia stood at 79 percent, unchanged from 2003/04, but up from 76 percent in 2001/02. Results show considerable variability district to district and in sub-populations such as Aboriginal versus non-Aboriginal and female versus male.

- Provincial foundation skills assessment (FSA) testing also shows considerable variability in outcomes between districts and across sub-populations.

- In contrast to highly variable completion and FSA test results, BC has very positive overall results on the OECD's Performance for International Student Assessment tests which place British Columbia students in the top 5 (or better) out of 40 participating nations in terms of reading, mathematics, science, and problem solving skills.

"BC's education system performs well overall, but the key to making further improvements in student outcomes – particularly the completion rate – is addressing the issue of drop outs", Dr. Jago noted. "Timely interventions at critical stages during primary and secondary education, together with efforts to include a broader array of trades, technical and vocational opportunities would help to provide more pathways to graduation", Jago continued.

The report contains six positive suggestions for improving British Columbia's public education system outcomes. These follow in summary form.

- ***Accountability:*** The current Accountability Framework and its component parts – school growth plans, school district contracts, triennial reviews, and Aboriginal education enhancement agreements – have become vital tools to develop education in the province. The Ministry of Education and the Government should expand the system of using information, in an open and public way, to improve education in the province.

- more -

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- ***Intervention and Turnarounds:*** Intervention strategies to improve classroom performance must be strong, sustained and appropriately resourced. Such strategies, possibly delivered through a third party agency independent of the Ministry of Education, should be developed and implemented as soon as possible.

- ***Responsibility for Literacy:*** School districts should be given primary responsibility for educational programming for the pre-school years, K-12, and adult education within their districts, the latter jointly with their regional college or university college board. District boards should be mandated to perform this oversight role for the purpose of identifying educational service gaps, partnering with both public and accredited private educational providers to fill gaps in educational provision and, where necessary, to augment standard K-12 programming. Districts should also strive to make schools into multi-purpose facilities that engage the community as a whole.

- ***New Organizational Structures:*** The Ministries of Education and Advanced Education should consider developing new organizational structures to integrate secondary and post-secondary programming, to help ease student transitions, and to expand post-secondary programming options earlier in secondary schooling, especially for individuals interested in trades and technical careers. Both Ministries should examine a closer alignment of school districts and college or university college regions to better integrate secondary and post-secondary programming.

- ***Testing:*** The provincial government should continue efforts to integrate data collection, sharing, and analysis across government departments and within the public education system, and to develop the relevant expertise for data to be used for service improvement.

- ***Funding:*** The provincial government should review current fiscal arrangements relating to K-12 education to enhance existing mechanisms or to introduce new measures to fund strategic initiatives intended to achieve better student and education system outcomes. Government should also review the roles of school districts and their administrative responsibilities to determine where savings might be achieved that can be used to fund strategic initiatives on a priority basis.

"BC is facing the prospect of declining enrollments over the next decade, at a time when demand for highly skilled and educated workers is increasing, and demands on public resources are intensifying", stated Tim McEwan, Executive Director of the Progress Board. "All British Columbians have a responsibility to work together to prepare the public education system for the future", McEwan concluded.

The BC Progress Board, formed by Premier Gordon Campbell in July 2001, is an independent Panel of 18 senior business and academic leaders. The Progress Board benchmarks BC's performance on measures of economy, innovation, education, environment, health and social condition over time and relative to other jurisdictions. The Board also advises on ways to improve performance.

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WORKING TOGETHER TO IMPROVE PERFORMANCE: PREPARING BC'S PUBLIC EDUCATION SYSTEM FOR THE FUTURE

Executive Summary

The BC Progress Board, established by Premier Gordon Campbell in July 2001, is an independent Panel of 18 senior business and academic leaders. The Board benchmarks BC's economic, innovation, education, environment, health and social performance over time and relative to other jurisdictions. The Progress Board also provides advice on ways to improve provincial performance.

Since the Progress Board's inception, education has figured prominently in its benchmarking and advisory work. An early report of the Progress Board, "Learning to Win", surveyed the provincial education system from early childhood through to life-long learning and, among other things, made suggestions for broadening pathways to high school graduation. A key performance indicator is the high school completion rate for those students who begin secondary education in grade eight and complete within six years. At 79 percent in 2004/05, the provincial average high school completion rate has improved from a level of 75 percent in 2000/01. There is, however, significant variability in student outcomes between school districts and among various sub-populations within the public education system. This report provides some suggestions on how the various components of the provincial education system can make further progress toward improving student outcomes.

In recent years a number of important changes have taken place in the management of K-12 education in the province, most notably the introduction of the Accountability Framework. The processes relating to this framework provide a structure and system for iterative planning, for setting educational priorities, for measuring results and identifying successes and problems, and for implementing new programs with an aim to improving overall results. These processes are open and transparent and invite parents and others, including Aboriginal communities, to engage with the schools and school districts to improve education for their children and youth.

The Accountability Framework could become an even more powerful tool for continuously improving public education in BC if enhanced by expanded and improved data analysis and interpretation and supported by effective follow-up actions to triennial school district reviews. For improvement to occur, it is essential that problems be appropriately identified and addressed, effective intervention strategies developed, and results recorded and analyzed. To assist in this process, specialist teachers organized into intervention or turnaround teams, either at the school district level or through a third party agency funded by government, could work with principals and teachers to enable them to develop the skills and implement the programs required to address the challenges they face in a long-term and sustainable manner.

A commitment to continuous improvement requires leadership at all levels, but within the structure of the public education system currently in place, leadership must come from school district supervisors and elected trustees. Together they need to be, and be seen to be, the education leaders in their communities, communicating to parents and the public about the challenges they face and the successes they achieve, working with other educators in their regions to

identify local gaps in a broad system of lifelong education that extends from children newly born to adults seeking improved literacy skills, or looking for new educational opportunities and interacting with government to ensure the excellence of the services they provide.

Given emerging economic demands for highly educated and skilled workers, the demographic forecast of a decade or more of declining enrolments in schools, and the intensification of competition for public and human resources, it is timely to examine the capacity of our educational organizations to meet the challenges we face. The provincial government needs to consider new institutional arrangements and structures to create greater opportunities for students, as well as to foster educational synergies that will ensure our social well-being and economic prosperity. In BC, the regional diversity of the province, not to mention its vast and challenging geography, dictate that new structures to better integrate secondary with post-secondary education should be established at the regional level. Moreover, these regional structures should make sense in terms of existing jurisdictional boundaries and community interactions. The college and university college regions could serve this purpose and provide an appropriate context for broader, regionalized educational planning and program delivery.

In fostering a closer interaction between secondary schools and post-secondary institutions priority attention needs to be given to promoting trades training. Given the enormous costs of equipping high school shops and keeping them current with rapidly changing technologies, school and school district partnerships with colleges and university colleges — where trades training should flourish and where teaching, facilities, and equipment should be state-of-the-art — would provide a wonderful opportunity to expand trades training and to develop the programmatic context within secondary schools to orient interested and appropriately talented youth to explore the trades as a career choice.

Partnerships between secondary schools and post-secondary institutions, however, should not focus exclusively on trades training. BC needs, and will continue to need, highly educated citizens – educated to advance the frontiers of knowledge through leading-edge research and to fill vacancies in the professions as teachers, physicians, and social workers, to give but a few broad examples of university-based programming. In fostering a closer interaction between the secondary and post-secondary levels of education in the province, the aim should be to promote education of the highest quality to the greatest number of students in accordance with their interests and aptitudes and to the betterment of their personal lives. If we do this, the economy will be served well as a by-product of achieving individual student success. It will also give qualified students the opportunity to fast-track their public school education.

A more encompassing approach to education aimed at maximizing student success and targeted to address current problems of educational underperformance needs an appropriate level of government support and funding. If BC is to become "the best educated, most literate jurisdiction on the continent" public education must be seen as a priority investment: an investment for the future; an investment for a sustainable knowledge-based economy; and, an investment for a well-educated, democratic, and tolerant civil society. When investing in education, however, governments should not write blank cheques. Government should demand accountability and

apply scientific rigour to determine if priority expenditures are producing intended outcomes and improving the educational system overall. It should also ensure that monies are being efficiently spent and that new administrative processes, enabled by the advent of information technologies and software-enabled management systems, are not being avoided simply for the sake of maintaining traditional ways of managing the public school system.

Society is dynamic. There have been notable changes in British Columbia's K-12 system as well as in BC's economy and society since the tabling of the Royal Commission report on education in 1988. BC's K-12 educational system needs to change and momentum and direction for change is already evident. Change is not necessarily good and resistance to change is not necessarily bad. Change without careful consultation is probably doomed to failure and resistance to change without a sincere consideration of the case for change is indisputably detrimental to societal growth and improvement. By building systematically upon the creativity that is being displayed at all levels by educators applying their knowledge and skills to address the challenges of a complex and changing society, positive change can be achieved and educational outcomes improved. It will take working together for BC to become the most educated and literate jurisdiction on the continent. Working together, rather than at cross-purposes, is something that we, as British Columbians, can do to ensure a better future for our children, our schools, and the province as a whole. After all, it is "for the sake of the kids."

The report identifies six positive suggestions for change in British Columbia's public education system. These follow:

1) The Accountability Framework and its component parts – school growth plans, school district accountability contracts, triennial reviews, and Aboriginal education enhancement agreements – have become vital tools to develop education in BC. We urge the Ministry and the Government to stay the course and to expand upon the system of using information in an open and public way to improve education in the province.

2) Through the Accountability Framework, BC has established strong foundations for the development of intervention strategies to improve classroom performance. Such turnaround strategies need to be strong, sustained and appropriately resourced. We recommend that such strategies, possibly delivered through a third party agency independent of the Ministry of Education, be developed and implemented as soon as possible.

3) The Ministry of Education now carries primary responsibility for the literacy agenda recently adopted by the province. To ensure effective implementation of a broad range of initiatives to promote and improve literacy at the local level, school districts should be given primary oversight responsibility for educational programming for the pre-school years, K-12, and adult education within their districts, the latter jointly with their regional college or university college board.

   District boards should be mandated to perform this educational oversight role for the purposes of identifying educational service gaps, working in partnership with both public and accredited private educational providers to fill gaps in educational provision and,

where necessary, to augment standard K-12 programming in order to provide services that their districts sorely need and lack. They should also strive to make schools into multi-purpose facilities that engage the community as a whole.

4) Following the release of this report and the completion of the Campus 2020 process, we recommend that the Ministries of Education and Advanced Education consider the development of new organizational structures to integrate secondary and post-secondary educational programming in the interest of easing transitions for students from secondary to post-secondary programs, as well as expanding post-secondary programming options available to eligible secondary school students – especially those interested in the trades and technical careers – at earlier points in their secondary schooling. In particular, the Ministries should examine a closer integration of school districts and college or university college regions for the purpose of achieving a better integration of secondary and post-secondary educational programming.

5) The systematic use of test results will assist in the development of a consistent, continuous, coherent, and contextual long-term approach to educational improvement in BC to the benefit of the province and to individual learners alike. We encourage the government to continue its efforts to integrate data collection, sharing, and analysis across government departments and within the public education system and to develop the relevant expertise for data to be effectively utilized for service improvement.

6) Government should review current fiscal arrangements relating to the funding of K-12 education in the province in order either to enhance existing funding mechanisms or to introduce new mechanisms to fund strategic initiatives intended to achieve better student and system educational outcomes. To this end, the government should review the roles of school districts and their administrative responsibilities to determine where savings might be achieved so that any savings identified are retained within the public education system and used to fund strategic initiatives on a priority basis.

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I. PURPOSE AND SCOPE

Established by Premier Campbell in July 2001, the BC Progress Board is an independent panel of 18 senior business and academic leaders mandated to benchmark BC's performance over time against other jurisdictions. In addition, the Board provides strategic advice on issues of critical importance to the future development of the province.

Education and the Progress Board

From the outset the Progress Board has emphasized the importance of education. In its Annual Benchmarking Reports since 2001 the Board has charted such measures as the number of secondary school graduates per 1,000 population (at age 18); the secondary school graduation rate; registered apprenticeship completions per 1,000 population; university completion; natural and applied sciences and related occupations; R&D expenditures as a percent of GDP; and Aboriginal employment, income and education. These longitudinal measures are intended to track BC's progress to attaining the goal of becoming a leading Canadian jurisdiction in economy, innovation and education by 2010.

Education has understandably featured prominently in the Board's advisory work. Its first advisory report emanated from the work of a Panel on Education, Skills, Training and Technology Transfer. In that report, entitled *Learning to Win – "Ready, Set, Go"* (2002), the Panel noted that, while "BC has a solid education foundation to build on," there remain significant challenges to address. Among its recommendations, the Panel proposed a target graduation rate from high school of 85 percent by 2010, up from 76 percent in 2000/01, an achievement its members believed to be possible partly by broadening the pathways to graduation through expanding enrolments in career, technical, and co-operative education programs.

The Board returned to the subject of education in *The Role of International Education: Expanding Student Opportunity and Economic Development in British Columbia* (2005), underscoring the competitive strengths and overall quality of BC's public and private educational systems within the global context of an expanding international market for education.

Most recently, in *Boosting Incomes, Confronting Demographic Change: BC's Productivity Imperative* (2006) the Board emphasized the link connecting overall levels of educational attainment and productivity. For example, the report noted that "raising literacy levels by one percent relative to the international average is associated with an eventual 2.5 percent rise in labour productivity". International research on the economic impacts of raising educational productivity shows similar or, sometimes, even greater gains.[1]

Strategic Goals

For the Progress Board, as for all British Columbians, education clearly matters: it is the bedrock of contemporary society. Recognizing that "education and literacy are fundamen-

tal to improving people's lives and ensuring the ongoing prosperity of our province and its citizens," the Government of British Columbia's *Annual Strategic Plan* (2005/06) sets as the first of five great goals the goal of making "British Columbia the best educated, most literate jurisdiction on the continent." Within the overall context of this general goal, the Government has specifically adopted a target high school completion rate of 85 percent, up from the current 79 percent, by 2015. It has also funded a significant increase in post-secondary student spaces, introduced new programs to promote literacy, put in place the *Ready, Set, Learn* program to engage parents in early childhood education practices, established Aboriginal Enhancement Agreements for the purpose of improving aboriginal educational outcomes, provided additional funding to better support special-needs students, and supported the work of the Industry Training Authority to increase apprenticeship opportunities for secondary school students.

Progress Board Advice to Government

In undertaking further advisory work on the state of Kindergarten to Grade 12 (K-12) education, this report starts by recognizing both the importance of the topic and the impressive creativity and energy that parents, students, educators and government leaders and officials alike have invested to make BC's education system the best in Canada.

Consequently, our approach to this investigation has been to listen and to seek the advice of key individuals who are intimately involved in the life of the system. We have interviewed more than 40 knowledgeable people: business and labour leaders, educators at all levels from teachers and principals to the Ministry of Education, as well as prominent members of BC's parent associations, elected trustees, district superintendents, the BC Teachers' Federation, and post-secondary educators. During these conversations we have come to understand more fully the different perspectives and values that are brought to bear on the subject of K-12 education. It is a subject characterized by deeply held views and sentiments.

In addition to our interviews, we have supported this report through a review of selective indicators of educational quality and achievement. These indicators have been used to assess the comparative quality of BC's K-12 system in relation to other provinces and to international jurisdictions, as well as to identify areas where problems exist.

Guided by our analysis of statistical indicators, we have directed research to such topics as early childhood education, adult literacy, school drop outs, teaching improvement, and currently prescribed planning, reporting, and accountability processes. Although many other topics were also identified as worthy of investigation, this report limits itself to what it considers to be issues critical to achieving improved graduation rates from the province's K-12 system.

Finally, this report should be considered as part of a composite of advisory reports being prepared this year by the Progress Board on the social character of life in the province. This series includes a report on poverty and a report on crime. Childhood and youth education are directly related to socio-economic status in terms of cause and effect. For example, it is

not surprising to find that most of the people imprisoned in Canada lack high school completion and have low literacy skills. By addressing these topics as part of a series of inquiries, the Progress Board aims at stimulating further thought on the most strategic measures Government might adopt to improve the conditions of life in the province.

Notwithstanding the diversity of opinions and perceptions expressed by our interviewees, we have come to appreciate the existence of a common attitude and goal among K-12 educators – namely to give British Columbia's children and youth the highest quality educational experience possible within reasonable budgetary provisions in order to equip them with the academic and social skills to achieve their career goals and to contribute to the future well-being of their society. Accordingly, our educational system should ensure that no individual student, or identifiable category of students, is marginalized or faces rejection and defeat through the educational process. The public education system should also ensure that students are encouraged and directed to maximize their potential, based on their particular interests and aptitudes, and that they are stimulated with the curiosity to become life-long learners. If these goals can be achieved, the standard measures of quality used to assure the public of the health of the BC education system, including Grade 12 graduation rates, will undoubtedly attest to BC's success in becoming one of the most, if not the most, literate and educated jurisdiction in North America.

II. CHANGING TIMES

Notable Changes Within K-12 Education

In the last comprehensive report on British Columbia's K-12 system, *A Legacy for Learners: The Report of the Royal Commission on Education, 1988,* Barry Sullivan, the commissioner, began by stating his wish to inform British Columbians and their government about the complex undertaking that is modern schooling. He sagely observed: "the school is, in many ways, a reflecting pool. It mirrors, with relatively little distortion, the myriad expectations, values, and purposes we expect to see embodied in its programs and operations".[2]

Much of the content, most of the insights, and many of the recommendations of the Royal Commission remain as relevant today as they were in 1988. However, the complexity of modern schooling has continued to increase. Take, for example, ethic diversity and its impact on school populations and schooling. The Royal Commission report noted the increasing Asian population in British Columbia, most notably an increase in the percentage of Chinese citizens from 1.5 to 4 percent between 1961 and 1986 and the growth of a once-scarcely visible South Asian community to nearly 2.5 percent of the provincial population over the same period.[3] Today, the reality is an even more ethnically diverse population with Chinese Canadians comprising more than 9 percent of the provincial population and South Asian Canadians more than 5 percent. Such changes have shaped a school system in which approximately one out of every five students in provincial schools come from families where English is not the language spoken at home.

In fact, during the last decade (1996/97 - 2005/06), the number of public school students from families whose primary language is not English increased from 100,739 to 126,872, or 26 percent (see Table 1). In independent schools, the number of students from non-English speaking families rose from 8,822 to 12,490, representing an even greater increase of nearly 42 percent. In some school districts, notably those in the Lower Mainland, the percentage of students from non-English speaking homes is far higher than in the rest of the province, for example: Richmond (56 percent), Vancouver (55 percent), Burnaby (50 percent), Surrey (39 percent), New Westminster (35 percent), Coquitlam (31 percent), and Abbotsford (25 percent). In 2005/06, over half the elementary school students in Vancouver, or 12,219 out of 23,873 youngsters were classified as English as a Second Language (ESL) students despite the restriction of five years of ESL classes per student. In some instances, the ESL cohort constitutes more than 60 percent of class sizes.[4]

Table 1: Students Whose Primary Language Spoken at Home is Not English

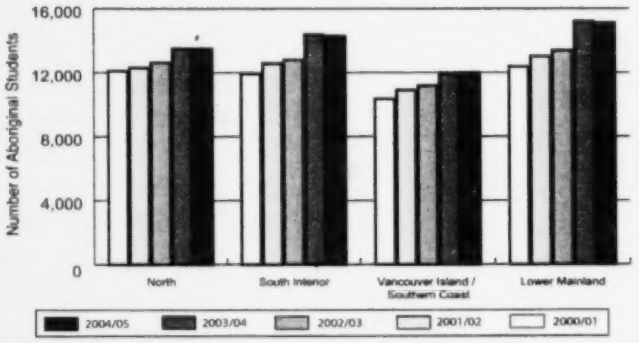
	Public			Independent			Public and Independent		
School Year	Number	Percent	Public School Students	Number	Percent	Independent School Students	Number	Percent	Public and Independent
1996/97	100,739	16.2	622,697	8,822	15.8	55,750	109,561	16.1	678,447
1997/98	105,995	16.6	638,934	9,733	16.7	58,449	115,728	16.6	697,383
1998/99	110,081	17.3	636,070	9,804	16.5	59,574	119,885	17.2	695,644
1999/00	107,220	16.9	635,089	10,062	16.9	59,435	117,282	16.9	694,524
2000/01	114,466	18.1	632,044	9,986	16.7	59,698	124,452	18.0	691,742
2001/02	118,732	18.9	629,616	9,870	16.5	59,921	128,602	18.7	689,537
2002/03	121,221	19.5	620,668	11,282	18.0	62,551	132,503	19.4	683,219
2003/04	123,979	20.2	614,665	11,337	17.9	63,315	135,316	20.0	677,980
2004/05	125,494	20.7	606,391	11,760	18.1	64,833	137,254	20.4	671,224
2005/06	126,872	21.2	599,505	12,490	18.9	66,136	139,362	20.9	665,641
1996/97 - 2005/06 growth	25.9		(3.7)	41.6		18.6	27.2		(1.9)

Source: BC Ministry of Education, 2005/06 Summary of Key Information

Significant changes have likewise reshaped the demography of the Aboriginal school population since 1988 (see Figure 1, next page). During the last decade alone (1996/97 to 2005/06), the number of Aboriginal students in public schools has risen from 38,084 to 57,227, or about 50 percent, an astounding increase at a time when the system's overall enrolment is declining.[5] In 37 of the province's 59 districts (60 if the Francophone Authority is included), Aboriginal students now comprise 10 percent or more of school populations, as indicated in Figure 2. In six school districts, Aboriginal youngsters constitute a majority of the school populations, for example: Nisga'a (90 percent), Stikine (73 percent), Haida Gwaii-Queen Charlotte (66 percent), Central Coast (62 percent), Prince Rupert (57 percent), and Vancouver Island West (50 percent).

Changes in the province's ethnic diversity and the geographical distribution of ethnic groups has further accentuated long-standing educational and social differences between schools in rural and urban districts. The smallest percentage of Aboriginal students can now be found principally in school districts on the Lower Mainland or along the South Coast, notably West Vancouver (0.4 percent), Richmond (1.2 percent), Gulf Islands (3.2 percent), Delta (3.0 percent), Burnaby (3.4 percent) and Vancouver (3.7 percent). Likewise, in 26 of the province's rural school districts, ESL students constitute fewer than two percent of school populations.

Figure 1: Distribution of Aboriginal Students in BC Public Schools by Region, 2000/01 to 2004/05

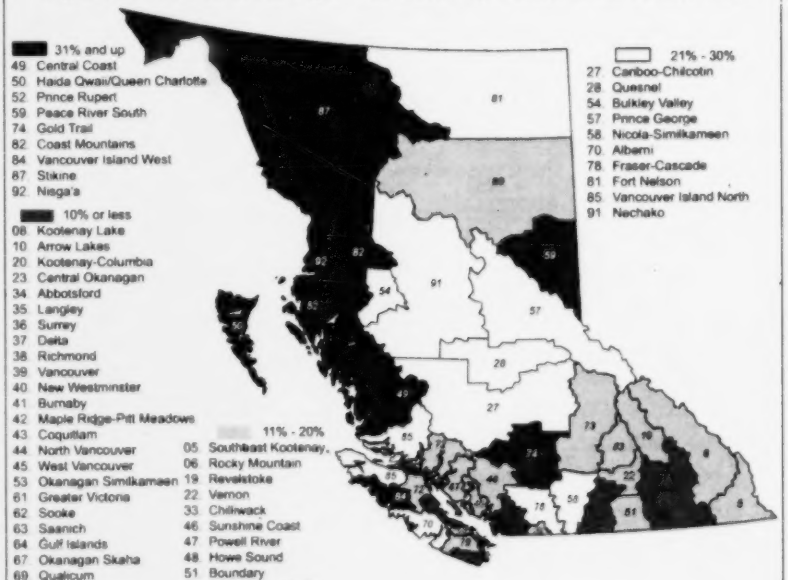


Notes:
North region includes school districts 050, 052, 054, 057, 059, 060, 081, 082, 087, 091, and 092.
South Interior region includes school districts 005, 006, 008, 010, 019, 020, 022, 023, 027, 028, 051, 053, 058, 067, 073, 074, 078, and 083.
Vancouver Island / Southern Coast region includes school districts 046, 047, 048, 049, 061, 062, 063, 064, 068, 069, 070, 071, 072, 079, 084, and 085.
Lower Mainland region includes school districts 033, 034, 035, 036, 037, 038, 039, 040, 041, 042, 043, 044, 045, and 075.
Includes only Aboriginal students who have self-identified as being of Aboriginal ancestry (First Nations: status and non-status, Metis, and Inuit) on September 30th.

Source: BC Ministry of Education

The most dramatic demographic change, however, has to do with the contraction in school enrolments. The British Columbia Royal Commission (1988) forecast enrolment growth from 491,234 students in 1987 to 556,744 in 1997, an increase of 13.3 percent.[6] Since then, however, we have witnessed a decline in the school-age population in British Columbia and a corresponding decline in school enrolment. Between the 2000/01 and 2005/06 school years,

Figure 2: Percent of Aboriginal Students by School District, 2005/06



Source: Original figure from Ministry of Education, reformatted by the BC Progress Board

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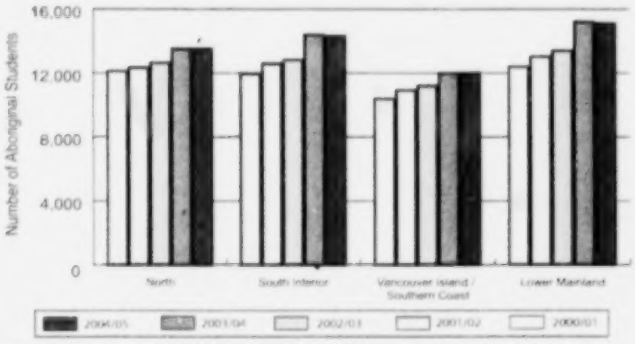

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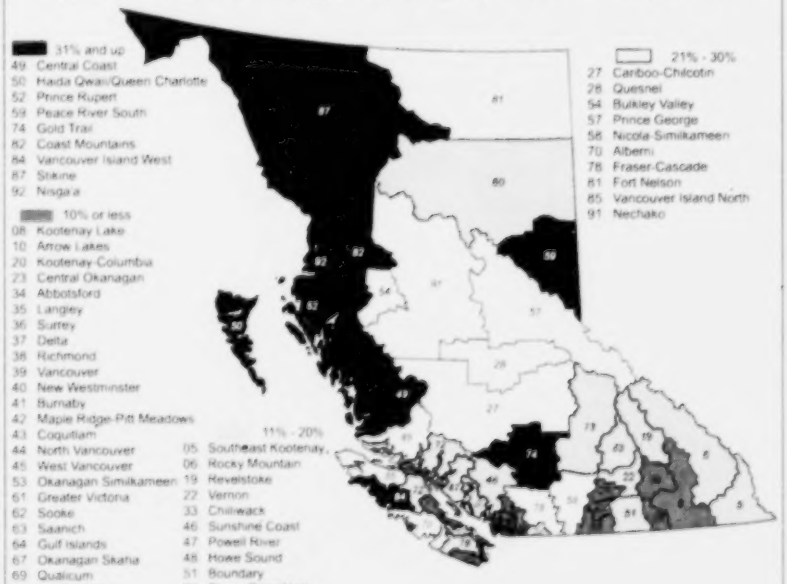
Source: BC Ministry of Education

The most dramatic demographic change, however, has to do with the contraction in school enrolments. The British Columbia Royal Commission (1988) forecast enrolment growth from 491,234 students in 1987 to 556,744 in 1997, an increase of 13.3 percent.[6] Since then, however, we have witnessed a decline in the school-age population in British Columbia and a corresponding decline in school enrolment. Between the 2000/01 and 2005/06 school years,

Figure 2: Percent of Aboriginal Students by School District, 2005/06



Source: Original figure from Ministry of Education; reformatted by the BC Progress Board

the size of the school-age population five through 19 inclusive declined from 790,586 to 752,555, a decrease of 38,031 individuals or five percent in four years as shown in Table 2. The overall number of school students enrolled in the K-12 system has also declined over the past 10 years, from 678,447 students in 1996/97 to 665,641 in 2005/06, a decrease of nearly 2 percent. More specifically, between 1996/97 and 2005/06 school years the number of public school students has shrunk from 622,697 to 599,505, a drop of 23,192 or almost 4 percent.

Table 2: Declining School Age Population and Number of Students

School Year	School Age Population	Change, percent	Number of Students	Change, percent
1994/95	743,250			
1995/96	762,495	2.6		
1996/97	776,622	1.9	678,447	
1997/98	782,779	0.8	697,383	2.8
1998/99	785,055	0.3	695,644	(0.3)
1999/00	787,245	0.3	694,524	(0.2)
2000/01	790,586	0.4	691,742	(0.4)
2001/02	788,187	(0.3)	689,537	(0.3)
2002/03	779,682	(1.1)	683,219	(0.9)
2003/04	769,447	(1.3)	677,980	(0.8)
2004/05	760,509	(1.2)	671,224	(1.0)
2005/06	752,555	(1.0)	665,641	(0.8)
1996/97 - 2005/06 Change	(3.1)		(1.9)	
2006/07	745,996	(0.9)	**657,010**	**(1.3)**
2007/08	740,071	(0.8)	**651,792**	**(0.8)**
2008/09	734,267	(0.8)	**646,680**	**(0.8)**
2009/10	728,435	(0.8)	**641,544**	**(0.8)**
2010/11	723,564	(0.7)	**637,254**	**(0.7)**
2011/12	719,618	(0.5)	**633,778**	**(0.5)**
2012/13	717,086	(0.4)	**631,548**	**(0.4)**
2013/14	715,795	(0.2)	**630,411**	**(0.2)**
2006/07 - 2013/14 Change	(4.0)		**(4.0)**	

Sources: BC Progress Board; BC Stats; BC Ministry of Education, 2005/06 Summary of Key Information

Note: The 2006/07 to 2013/14 "Number of Students" are a simple projection using the 1996/97 through 2005/06 average for "Number of Students" as a ratio of "School Age Population"

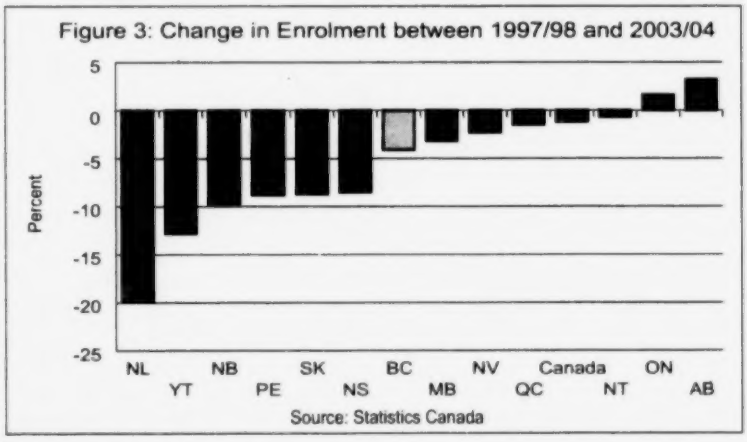
The distribution of students across Grades 1 through 12 is also changing. In 1996/97, 67 percent of students in public schools were enrolled in Grades 1 through 8; by 2005/06 they constituted only 63 percent of the total population. In other words, amid an overall reduction in the provincial public school population, the most recent declines are most appreciable in the elementary school, Grades 1-8. In contrast, high school populations are nearly 20,000 students larger than a decade ago. Enrolment projections suggest future declines of something less than 1 percent annually. Such forecasts suggest that the entire provincial school-age population[7] will be about 715,795 students by 2013/14, representing a reduction of 36,760 individuals, or about 5 percent from current levels.

Enrolment declines produce an over capacity in facilities.[8] Taken as a whole, public schools have un-occupied classroom spaces that would otherwise accomodate 58,586 students, a figure that translates into a provincial over capacity of nearly 11 percent. In certain school districts, the under use of facilities is even more considerable. Vancouver Island West, for

example, has 65 percent more classroom space than it requires, Central Coast 60 percent, Haida-Gwaii-Queen Charlotte 56 percent, Vancouver Island North 54 percent, Stikine 50 percent, Gold-Trail 45 percent, Boundary 40 percent, Nechako Lakes 36 percent and Peace River South 33 percent.

Such demographic changes have prompted school closings in some districts, usually amid great controversy and sometimes resulting in the removal of schools that still have utility from active inventory. According to Ministry of Education estimates, the average public school in British Columbia has 65 percent of its life remaining. Only about eight percent of schools have less than 40 percent, and fewer than one-half percent have less than 20 percent of life remaining. Conversion of vacated schools to other uses, or the sale of the schools and their properties, is emerging as a critical issue for school boards and the Ministry to address.

Declining enrolments are not unique to British Columbia. Enrolments in Canadian public elementary and secondary schools have dropped slightly since 1997/98 with only Alberta and Ontario bucking the general trend, as shown in Figure 3. Nevertheless, from 2002/03 to 2003/04, all provinces and territories reported enrolment declines.



This decline is attributable in part to an ageing population, as the children of the baby boomers are now at the point of starting their post-secondary education but not yet forming new families and, also, in part to the decline of the Canadian fertility rate to 1.53 children per woman, below population replacement.[9]

In contrast to the decline in public school enrolment in the British Columbia K-12 system, the number of students enrolled in BC independent schools between 1996/97 and 2005/06 climbed from 55,750 to 66,136, a growth of 10,386 students or 18.6 percent. The migration to independent schools was noted in the 1988 Royal Commission Report where it was reported that enrolments had increased from 3.2 percent of total enrolment in 1977/78 to 6.5 percent in 1987/88. The trend continues as enrolment in independent schools has grown from 8.7 percent in 2002/03 to 9.9 percent, accounting for approximately one in every ten students in 2005/06.[10] In some districts, for example SD 61 (Victoria), the proportion of students in independent schools is closer to 19 percent.

Student migration from public to independent schools is also mirrored within public schooling as more and more students opt for French Immersion programs, a number that has grown

from 29,995 in 1996/97 to 38,009 in 2005/06, a rise of 27 percent. French Immersion students now account for 6.3 percent of the total public school population, despite the fact that 16 of the province's 59 school districts do not offer the program. As student performance figures indicate (see pages 15 and 16), French Immersion programs essentially constitute an enriched academic stream within public schooling where test scores and graduation rates are significantly higher than the general average.[11]

Table 3: Education Options

School Year	Public School Students	Independent School Students	French Immersion	Home Schooling	Distributed Learning
1996/97	622,697	55,750	29,995	4,886	n/a
1997/98	638,934	58,449	29,519	4,819	782
1998/99	636,070	59,574	29,432	4,630	2,193
1999/00	635,089	59,435	29,979	4,349	2,276
2000/01	632,044	59,698	30,421	4,135	2,224
2001/02	629,616	59,921	31,136	3,649	2,221
2002/03	620,668	62,551	31,990	3,686	4,633
2003/04	614,665	63,315	33,406	3,329	6,798
2004/05	606,391	64,833	35,519	3,069	7,990
2005/06	599,505	66,136	38,009	2,721	8,334
1996/97 - 2005/06 growth	(3.7)	18.6	26.7	(44.3)	n/a

Source: BC Ministry of Education, 2005/06 Summary of Key Information

An even greater streaming effect may accompany the expansion of Aboriginal schooling through the Aboriginal Education agreement signed by the Province of British Columbia and the Government of Canada. This agreement ensures equitable funding for Aboriginal schools in the province and provides for the expansion of the Aboriginal school sector under the control of Aboriginal Education Councils. Such agencies intend to develop schools that will both reflect Aboriginal culture and have high academic standards. As this sector will likely grow over time, improving the educational outcomes for the province's Aboriginal students, it may also serve to remove more capable and high performing youngsters from the mainstream of public schooling.

Educational provision is also made possible through other options. The province allows for home schooling (where the numbers have declined by 44 percent, from 4,886, or 0.7 percent of total enrolments to 2,721, or 0.5 percent over the past decade), distributed learning (where numbers within the public system have increased during the same period from 782 in 1997/98 to 8,334 in 2005/06), and adult education programs (where the numbers have remained fairly stable at about 3 percent of the total school population, or 17,417 students in 2005/06). These options, when combined with independent school growth, growth in French Immersion programs, and a new and expanding Aboriginal school sector, outline the principal features of a K-12 school system characterized increasingly by school and program

choice. At a time of a shrinking school age populations, choice will inevitably intensify competition for enrolment. Increased competition will also result from the provisions of Bill 33, recently passed, that will enable more students to attend non-neighborhood schools. Choice benefits students by allowing them to follow their interests, but there is the danger that it could also lead to racially and socially segregated schools and communities. Government needs to monitor carefully the effects of increased choice to ensure that school choice patterns are integrated into related aspects of social planning (i.e. housing initiatives).

Societal Changes

Among the major societal changes identified by the 1988 Royal Commission report was the global "shift to economies based increasingly on information and knowledge,"[12] a type of economy dramatically different from the resource economy that had traditionally served as the basis of British Columbia's prosperity. This change, perhaps only dimly perceived in 1988, is even more real today. High-quality human resources are now the chief currency of international competition. In today's language, a so-called "digital divide" separates "old" from "new" economies with new "intellectual economies" enjoying disproportionate economic and social advantages over older economies. In the words of the 2006 OECD Indicators Report, entitled *Education at a Glance*:

> The OECD countries' capacity to compete in the global knowledge economy will therefore depend on whether they can meet the fast-growing demand for high-level skills. This, in turn, will hinge on significant improvements in the quality of schooling outcomes and a more equitable distribution in learning opportunities.[13]

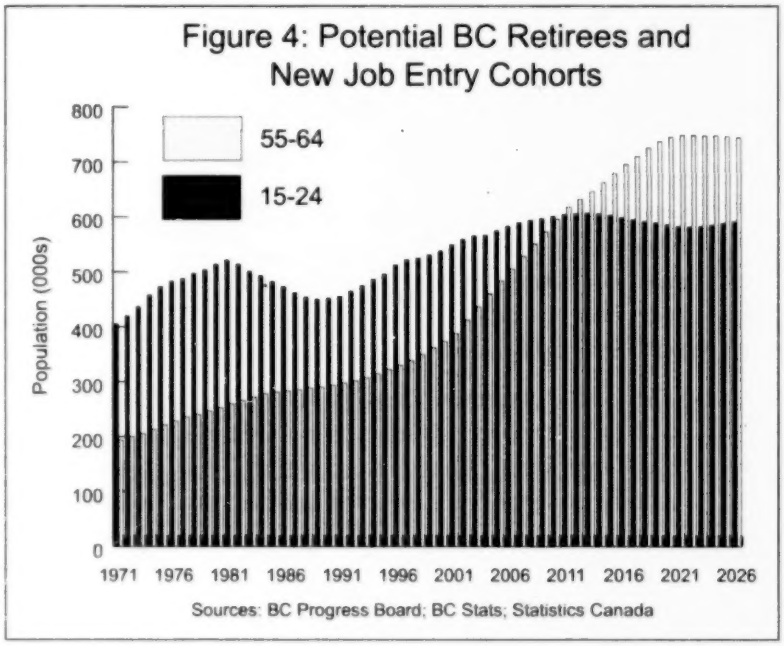
In this regard, what is "most striking" in the context of 2006 "is that both Europe and the United States" – the traditional leaders in educational outcomes – now "find themselves increasingly outperformed in education by countries in East Asia."[14]

Consequently, education matters if countries are to maintain their competitive edge in the global economy. In this regard, British Columbia will face a major challenge in meeting projected labour needs over the next decade and in having sufficient skilled and well-educated people entering the workforce to ensure a competitive and prosperous economy.

The province is projected to generate 424,800 new jobs over the period 2003 to 2013, leading to an average employment growth rate of 1.9 percent per year. In addition, a significant number of other job openings, 426,600, are expected to result from reductions in the workforce as a result of retirements and deaths, developments that will produce a job replacement rate of more than 21 percent. Altogether, economic growth and the replacement rate are forecast to create a total of 851,400 job opportunities for new entrants into the BC labour market for the period up to 2013.[15]

The largest annual average employment growth rates are projected in sectors such as: *Health Care and Social Assistance*; *Professional, Scientific and Technical Services*; *Transportation and Warehousing*; and, *Construction*. We expect these industries will continue to experience

fairly strong demand and economic growth over the outlook period. High rates of retirement may also mean relatively high demands for employees in: *Health; Business, Finance and Administration; Art, Culture, Recreation and Sport* and in *Occupations Unique to Primary Industry*. Approximately 70 percent of projected employment opportunities, both in newly created jobs, as well as replacement openings, will require some post-secondary education or industrial apprenticeship training. Employment demands will be highest for occupations requiring a university degree or higher.



One substantial challenge will be to meet these labour needs in the face of declining school enrolments. In the short term, the baby boom echo generation will assist. The 25 to 29 population age group will increase slightly Canada-wide over the next few years to 2.3 million. However, the 19 to 24 population is expected to peak in size in 2014 at about 2.7 million with a smaller trailing population aged 14 to 18, which will peak in 2008 at 2.2 million. By 2011, the age group of new labour market entrants (age 15-24) in BC will fall below the age group of incipient retirees (age 55-64) for the first time in recent history, as indicated in Figure 4 above. In the absence of any new Canadian baby boom over the next several decades, it is projected that the national population aged five to 13 will decrease between 2001 and 2011 to about 3.2 million, a drop of approximately half a million youngsters.

These demographic and economic trends strongly suggest challenging times ahead for British Columbia in labour market recruitment with attendant challenges for the province's K-12 education system. The increased use of skilled immigrant labour may offset labour and economic development issues but further challenge schools by increasing the proportion of students from non-English speaking homes who require language skills and acculturation in order to adapt to the Canadian environment. High labour demands and increased immigration will make it even more intolerable than now to consign a sizeable proportion of the domestic school-aged population to the economy's margins without the knowledge and skills

Grade 12 completion provides.

School dropouts present serious educational and social challenges, especially given the fact that at least 20 percent of provincial students still fail to complete high school. Dropping out of school has profound costs for both individuals and society as a whole. Failure to complete high school greatly limits individuals' earnings, their occupational and social mobility, as well as their possibilities for full time and continuing employment. Along with such high personal costs, studies show that non-completing high school students consume a disproportionate share of public spending in areas such as health care, social welfare, and the justice system. In contrast, recent research suggests that individuals improve their lifetime earnings by 10 to 14 percent with each additional year of high school they complete.

The problem of school drop-outs is not unique to British Columbia: it is a general problem in all OECD countries. As the report, *Education at a Glance*, states: "Time is running out and the clock keeps ticking. Every eight seconds, one student in the OECD area leaves school without completing an upper secondary qualification, with a gloomy outlook for their future . . . Moreover . . . the penalties for not obtaining strong baseline qualifications continue to rise year after year."[16] In British Columbia, with a drop-out rate in excess of 20 percent, much higher for Aboriginal youth, it is a problem that demands effective action both for economic considerations as well for more fundamental concerns about social equity and providing opportunity for all.

Responding to Change

The preceding two sections highlight significant changes within the province's K-12 system and within the economy. Our review of the changing context in provincial education is by no means exhaustive. Many other important changes are taking place. For example, a move to equip both schools and, in some cases students, with computers has helped to ensure that students are given the skills required to cope with the new digital age. Likewise, the increased attention given to literacy in the pre-school population, the school-aged population, and the adult population, including in some cases the parents of pre-school aged children, is a welcomed development to raise the educational attainment level for the entire population. So, too, is the recent investment in virtual learning to expand course options available to students, particularly in rural areas where low enrolments cannot justify offering a range of senior level courses.[17]

In short, our schools are shaped by a dynamic social and economic context. Within the context of these changes, school and classroom educators, school district officials and administrators, as well as educational managers within government, struggle daily to provide high quality learning opportunities for the province's young people and to meet the challenges of a changing world in relevant and creative ways. Indeed, the creativity evident at all levels of the system to address the issues of change is impressive.

However questions remain. Are we doing enough? Are we being sufficiently strategic in our approach? Are we addressing the right issues? Are we mobilizing our human and financial

resources most effectively and efficiently to achieve desired outcomes? Are we generally in agreement as to what those outcomes should be? Are current administrative and governance structures appropriate to addressing the challenges we face? If not, are positive changes possible that would not set off such a chain of negative responses and reactions as to set education back, not forward? And finally, within a highly decentralized system of education marked by a significant degree of autonomy at every level, often politicized by labour strife, and constrained by legislated processes and provisions as well as by labour agreements, is there scope for leadership at any level to effect necessary change?

We have attempted to answer such questions through our interviews with more than forty individuals and organizational representatives who have deep knowledge and keen insight into the nature, strengths and weaknesses of the province's K-12 educational system. Our discussions informed us greatly about the rich human resources and the multiple kinds of leadership found in and around the K-12 system—from inspired teachers seeking new approaches to pedagogy; from parents seeking to improve educational opportunities for their children; from principals managing a changing school environment; from superintendents, trustees and other school board officials responding to community and regional needs; and from Ministry officials and elected government leaders. On the basis of the information we have collected and analyzed, we will try to explain in this report what is working well, where improvements are required, how necessary changes can be made, and what adjustments we can make to ensure that BC has the opportunity to become the best educated and literate jurisdiction in North America by 2015. It is the intention of this report to identify some of those positive changes currently taking place or being contemplated and to suggest measures that might facilitate the ability of British Columbia's public education system to achieve the high quality standards and improved outcomes that are set out in the Government's strategic plan.

III. MEASURING UP

System-Wide Quality Measures

Over the past two decades, large-scale assessment has become the "vehicle of choice" for promoting accountability in public education.[18] Even before this time, British Columbia was a regular participant in international and national assessment programs administered by various organizations and agencies. One of the most influential international programs to measure school systems in the western world is the Programme for International Student Assessment (PISA) administered by the Organization for Economic Co-operation and Development (OECD). First administered in 2000, PISA assessments are not "conventional" school tests in that they are not directly tied to the curricula of individual educational jurisdictions. PISA assessments survey 15-year-old students' general numeracy, literacy skills, scientific knowledge, and problem-solving skills in order to determine how well they are prepared for life when they complete K-12 schooling.

Table 4: OECD 2003 PISA Results

	Math	Math Rank	Reading	Reading Rank	Science	Science Rank	Problem Solving	Problem Solving Rank
Australia	524	12	525	5	525	6	530	8
Austria	506	19	491	22	491	23	506	19
Belgium	529	9	507	12	509	15	525	11
Brazil	356	41	403	38	390	40	371	39
British Columbia	**538**	**4**	**535**	**2**	**527**	**5**	**536**	**5**
Canada	532	8	528	4	519	12	529	9
Czech Republic	516	14	489	25	523	10	516	16
Denmark	514	16	492	20	475	32	517	15
Finland	544	2	543	1	548	1	548	2
France	511	17	496	18	511	14	519	14
Germany	503	20	491	22	502	19	513	17
Greece	445	33	472	31	481	31	449	33
HongKong-China	550	1	510	11	539	3	548	2
Hungary	490	25	482	26	503	18	501	21
Iceland	515	15	492	20	495	21	505	20
Indonesia	360	39	382	40	395	39	361	40
Ireland	503	20	515	8	505	17	498	22
Italy	466	31	476	30	486	28	470	31
Japan	534	7	498	15	548	1	547	4
Korea	542	3	534	3	538	4	550	1
Latvia	483	28	491	22	489	25	483	27
Liechtenstein	536	6	525	5	525	6	529	9
Luxembourg	493	24	479	28	483	30	494	23
Macao-China	527	10	498	15	525	6	532	7
Mexico	385	38	400	39	405	38	384	38
Netherlands	538	4	513	10	524	9	520	13
New Zealand	523	13	522	7	521	11	533	6
Norway	495	23	500	13	484	29	490	25
Poland	490	25	497	17	498	20	487	26
Portugal	466	31	478	29	468	33	470	31
Russian Federation	468	30	442	33	489	25	479	29
Serbia and Montenegro	437	34	412	37	436	35	420	35
Slovak Republic	498	22	469	32	495	21	492	24
Spain	485	27	481	27	487	27	482	28
Sweden	509	18	514	9	506	16	509	18
Switzerland	527	10	499	14	513	13	521	12
Thailand	417	37	420	36	429	37	425	34
Tunisia	359	40	375	41	385	41	345	41
Turkey	423	35	441	34	434	36	408	37
United States	483	28	495	19	491	23	477	30
Uruguay	422	36	434	35	438	34	411	36

Sources: Statistics Canada; OECD

British Columbia has generally ranked highly on PISA assessments. Compared to 40 nations that participated in 2003, British Columbia ranked 2nd in reading, 4th in mathematics, 5th in science and 5th in overall problem-solving. British Columbia, in fact, ranked higher than Canada overall, which ranked 4th in reading, 8th for mathematics, 12th in science and 9th in overall problem-solving. Clearly, there is much to be proud of with respect to the province's national and international scholastic reputation. Further comparative results for BC and OECD jurisdictions are listed in Table 4 on the previous page.

National-level assessments, such as the Student Achievement Indicators Program, (SAIP) administered by the Council of Ministers of Education, Canada (CMEC) further attest to British Columbia's overall high achievement levels in schooling. For example, in 2004, British Columbia's 13 year olds who performed at level 4 (out of 5 levels) ranked 4th in science achievement, while 16 year olds placed 3rd. These achievement levels are even more praiseworthy when one considers that most of these gains have been made in recent years. In 1996, British Columbia ranked only 11th in the number of 13 year olds reaching level 4 (out of 5 levels) and 10th among 16 year olds achieving level 4.

Varying Results

Many educators and other individuals agree that standardized indicators such as PISA and SAIP are generally useful comparative measures across jurisdictions and are generally well regarded by senior education managers, the public and parents. Such portraits, however, are most useful as broad indicators of system-wide performance. At the classroom level teachers are disinclined to note PISA and SAIP outcomes because teachers ordinarily develop learning plans informed by classroom-based instruments that indicate in detail the progress of individual learners. Large-scale assessments are also limited as diagnostic tools in that they are written by students sampled from particular populations rather than by all students. The outcomes of such tests may therefore mask inequities only visible when the results are examined in the contexts within which the tests are written.[19]

Since 1999, the BC Ministry of Education has been administering the Foundation Skills Assessment (FSA), an annual province-wide test that measures the reading comprehension, writing and numeracy skills of all youngsters in Grade 4 and Grade 7 classes. The results of the FSA illustrate the variability that exists in student achievement among various school sub-populations including Aboriginal children, ESL students, French Immersion students, special needs students, and between males and females in schools (see Tables 5 through 7 below). The regional differences reflect, to a degree, varying socio-economic conditions across the province and suggest an urban-rural dichotomy. However, recent research indicates that rurality is not a primary influence on educational attainment.[20]

This variability among FSA outcomes is most starkly illustrated in comparisons among the province's school districts, as indicated in Table 7 with the comparison of School District 45 (West Vancouver) with School District 92 (Nisga'a).

We should note that we visited the Nisga'a school in New Aiyansh and were greatly im-

Table 5: FSA Scores for Grade Seven Writing, by sub-population

Sub-Population	2000/01	2001/02	2002/03	2003/04	2004/05
	Percent of students meeting or exceeding expectations				
Aboriginal	61	66	61	75	75
ESL	79	82	71	85	84
French Immersion	88	91	88	96	96
Special Education	49	57	41	61	63
Females	90	91	87	95	95
Males	72	78	72	84	85
Independent Only	81	84	79	90	90

Source: BC Ministry of Education

Table 6: FSA Scores for Grade Seven Numeracy, by sub-population

Sub-Population	2000/01	2001/02	2002/03	2003/04	2004/05
	Percent of students meeting or exceeding expectations				
Aboriginal	58	61	64	63	62
ESL	83	81	81	81	79
French Immersion	90	90	92	92	91
Special Education	56	60	59	58	59
Females	80	82	83	82	81
Males	82	83	84	84	84
Independent Only	81	82	84	83	83

Source: BC Ministry of Education

Table 7: Grade 4 and Grade 7 FSA Scores by High and Low Performing Districts

West Vancouver (SD #45)		Percent of Students, 2002/03			Percent of Students, 2003/04		
		Below Expectations	Meeting Expectations	Above Expectations	Below Expectations	Meeting Expectations	Above Expectations
Grade Four	Numeracy	0.5	64.4	35.1	4.0	68.8	27.2
	Reading	6.5	84.4	9.0	8.2	75.1	16.7
	Writing	2.5	92.7	4.8	1.5	95.2	3.3
Grade Seven	Numeracy	4.4	76.4	19.2	6.0	71.9	22.0
	Reading	6.7	72.4	20.9	12.6	71.4	16.1
	Writing	1.1	95.8	3.1	4.4	93.4	2.2
Nisga'a (SD #92)		Percent of Students, 2002/03			Percent of Students, 2003/04		
		Below Expectations	Meeting Expectations	Above Expectations	Below Expectations	Meeting Expectations	Above Expectations
Grade Four	Numeracy	45.2	54.8	0.0	55.2	44.8	0.0
	Reading	55.9	44.1	0.0	44.0	56.0	0.0
	Writing	25.0	75.0	0.0	25.9	74.1	0.0
Grade Seven	Numeracy	67.6	32.4	0.0	67.4	32.6	0.0
	Reading	64.7	35.3	0.0	72.7	27.3	0.0
	Writing	36.4	63.6	0.0	21.4	78.6	0.0

Source: BC Ministry of Education

pressed by efforts underway to improve student performance and to keep youth either in school or as members of adult learning opportunities. Equally challenging is the fact that these inequities are mirrored in school completion data, as indicated in tables 8 and 9.

Table 8: Six-Year Completion Rates (%) for Public and Independent Students

School Year	Male	Female	Aboriginal	ESL	French Immersion	Special Needs*	Independent Only	All Students
2000-2001	71	80	42	77	91	57		75
2001-2002	72	81	42	79	93	65		76
2002-2003	74	82	46	80	93	68	86	78
2003-2004	75	83	42	82	92	67	88	79
2004-2005	75	82	44	83	90	66	86	79

Note: *=Excludes gifted students

Source: BC Ministry of Education

Table 9: Six-Year School Completion Rates

	School District	2000/01	2001/02	2002/03	2003/04	2004/05	5 Year Mean
		Percent					
5	Southeast Kootenay*	87	86	84	89	97	87
20	Kootenay-Columbia	82	84	89	87	87	86
27	Cariboo-Chilcotin	64	65	66	65	69	66
28	Quesnel	67	69	71	69	71	69
37	Delta	85	83	86	85	85	85
38	Richmond**	88	88	88	90	93	89
45	West Vancouver**	86	88	90	88	91	89
49	Central Coast	58	72	62	54	71	64
50	Haida Gwaii/Queen Charlotte	60	52	53	58	63	57
52	Prince Rupert	64	69	65	73	76	69
57	Prince George	67	67	69	67	69	68
58	Nicola- Similkameen	69	66	65	66	60	65
59	Peace River South	72	73	61	63	70	68
62	Sooke	65	62	69	68	65	66
64	Gulf Islands	63	71	68	78	68	69
70	Alberni	58	57	67	66	62	62
74	Gold Trail	57	55	63	55	60	58
79	Cowichan Valley	66	68	70	70	69	69
81	Fort Nelson	76	67	67	52	73	66
84	Vancouver Island West	45	57	64	62	59	58
87	Stikine	26	34	28	44	62	37
91	Nechako Lakes	67	66	66	70	63	66
92	Nisga'a	42	39	67	54	63	52

Source: BC Ministry of Education Note: *Top rate, 2004/05 **Tied for top 5-year rate.

In summary, international and national achievement indicators demonstrate that British Columbia has established itself as one of the highest achieving educational jurisdictions in the western world. The provincial education system is to be highly congratulated for what has been accomplished. Nevertheless, when FSA scores and completion rates are examined more closely by district and by sub-populations, it becomes evident that significant variability exists within the provincial K-12 system. Simply put, not all learners benefit equally from the learning opportunities that are provided to them. This finding presents a serious challenge for the Province as it seeks to ensure that 85 percent of high school students graduate and that BC will become the "best educated, most literate jurisdiction on the continent."

The Nature of the Challenge

If a primary goal of Government is to lift the six-year Grade 12 Completion Rate to 85 percent, it is mandatory to address the issue of school dropouts.

Dropping out of school is a complex phenomenon. In British Columbia some 21 percent of students drop out between Grade 8 and the completion of Grade 12. In this regard, British Columbia performs at about the Canadian average. The differential between male and female six-year completion – and therefore dropout rates – is about seven percent as illustrated in Table 8 above. Symptoms of disengagement or potential dropping out are often evident long before dropping out occurs as evidenced by poor performance, withdrawal, or behavioural problems. Thus, the challenge to educators becomes that of intervening effectively when students begin to show the signs of turning-off or withdrawal.

> What we know about drop outs is that at some point along their educational journey they become disengaged, frustrated, and often angry: some because they cannot cope with the academic demands of high school; some for social, family or health reasons; some because the curriculum and standardized approach to teaching lacks interest or relevancy; some because the transition from relatively small and intimate elementary schools to large and impersonal high schools leaves them disconnected, without a sense of belonging; some because the system, or their families, convey the message that education is not for them; and some because of readily available job opportunities.[21]

Potential drop outs can often be identified early in their school careers. The use of standard tests to identify reading and other developmental deficiencies when students first enter the formal school system gives educators a much greater opportunity to work intensively with disadvantaged children to overcome poor literacy and cognitive skills owing to a lack of preparedness in their pre-school years. Today, tests are routinely administered to provide the effective baseline data that allow schools to track a child's growth and development as learners.

Of equal if not greater importance, the Ministry of Education, school districts and individual schools are promoting and facilitating early childhood education programs, such as *Ready, Set, Learn*, establishing links with early childhood educators and licensed day-care centres, and creating learning programs for parents and pre-school children. Current research argues

strongly that such early childhood education programs, particularly aimed at children from ages one to three, are of vital importance to later educational success, particularly when targeted to students from disadvantaged socio-economic backgrounds and from families where the parents, most notably the mother, have low levels of educational attainment.[22] As the OECD report on the Canadian economy argues:

> Investing more in pre-school intervention programmes to increase the school readiness of young disadvantaged children is likely to produce ample social benefits. They could be more cost-effective than remedial interventions later in life such as education programmes for high-school dropouts and training programmes for welfare recipients or disadvantaged learners.[23]

Despite this claim, remedial interventions remain particularly important especially for students in the pre-adolescent years who are making the transition from elementary to high school. Recently Ontario has introduced a Grade 8-9 transition plan to help the province improve its high school graduation rate from the current level of 68 percent to 85 percent. In fact, "there is considerable evidence that the end of the 9th grade is particularly important" in the typical drop out scenario[24] and most drop outs leave school between the 10th and 12th grades.[25] Interventions in the form of alternative program opportunities take various forms, including course delivery through electronic or other distributed learning approaches that allow students to study in their homes, in alternative school settings, or in workplace situations.

In the senior high school years (Grade 10 and Grade 11), expanding the character of the high school curriculum to include a broader range of trades, technical, and other vocational opportunities would likewise present new opportunities for work-study programs and enlarge the potential pathways to graduation for many students, including those who would like to work with their hands as well as their heads.

Ample evidence abounds that BC schools and school districts are attempting to be creative and responsive in this regard by developing new programs and partnerships. But alternative programs to address the problem of school dropouts often make heavy demands on human and other resources that are in short supply.

Some contend that many of the reasons for young people dropping out, especially socio-economic factors, family circumstances and, in the case of Aboriginal youth, cultural issues, lie beyond the ability of schools and educators to control, influence, or even to mitigate. Two scholars have put it this way: "Many of the factors positively associated with dropping out of school are fixed in the sense that there is little that school staff or policy makers can do to change them."[26] Anecdotally, however, there are a plethora of stories of youth who have been turned around through the provision of alternative programs of a variety of types, including but by no means limited to opportunities for them to learn practical skills and to engage their interests and aptitudes in the trades, technology, the arts and sports. Also, as researchers Audas and Willms attest, "a significant proportion of those who drop out of school eventually do return to complete their secondary education..."[27]

Consequently, a phenomenon related to dropping out is dropping back in. Statistics Canada, reports that drop outs, measured on the basis of the percentage of 20-24 year-olds who were neither attending school nor had a high school diploma in the measurement year, improved from 17 percent in 1990/91 to 10 percent in 2002/04.[28] The comparable percentages for British Columbia are about 13.5 percent declining to some 7.5 percent. As Statistics Canada observes: "Many drop outs later return to complete their school studies. Of those who had dropped out of school by December 1999, 27 percent had graduated from high school by December, 2003 and about half of these new graduates had gone on to post-secondary studies."[29] Indeed, as the British Columbia experience reveals, some students by-pass Grade 12 to go directly into trades and apprenticeship programs in public or private colleges and some students enter college or university programs as adults, or as graduates of home school programs, without having received the Dogwood Diploma.

Seen from this perspective, the six-year Grade 12 completion rate understates the overall rate of high school graduation, but not significantly. The ideal remains to graduate as many students as possible within six years from their enrolment in Grade 8 without sacrificing educational quality. But the ideal should not obscure the fact that the BC education system provides many alternative opportunities for students to secure Grade 12 graduation beyond the six-year norm, thereby allowing students to enroll in post-secondary studies. Such opportunities and flexibility should be celebrated. We should not become fixated with the six-year Grade 12 completion rate to the point where it obscures our vision of a fluid system where students sometimes drop out as youngsters but also drop back in as young adults as their interest in and understanding of the importance of education and career preparation deepen.

IV. EFFECTING CHANGE IN A COMPLEX AND DECENTRALIZED SYSTEM

The System Today

In 2005/06, the British Columbia provincial school system consists of 1,662 public schools scattered across 59 school districts along with 355 loosely associated independent schools, many of them faith-based. The province's smallest school districts, in terms of the number of school structures are Nisga'a (4), Stikine (4), Fort Nelson (5), Arrow Lakes (5) and Revelstoke (5). The largest are Surrey (127), Vancouver (113), Coquitlam (74), Prince George (55), Victoria (53) and Kamloops-Thompson (52). The province's smallest school districts, in terms of student populations, are Stikine (301), Central Coast (312), Vancouver Island West (466), Nisga'a (628) and Arrow Lakes (668). The largest districts are Surrey (66,100), Vancouver (60,945), Coquitlam (32,812), Burnaby (25,576) and Central Okanagan (22,099), as shown in Table 10 below. Thirty-seven of the province's 59 school districts have student populations below 7,500.[30] Despite this disparity in size, the elected school boards governing these districts and the superintendents and their officials who manage them fulfill simi-

lar responsibilities in the face of vastly different economies of scale and levels of resident expertise.

In terms of staffing, 36,886 educators work in the British Columbia public school system, 33,716 as teachers and 3,170 as administrators. Between 1996/97 and 2005/06, the number of teachers declined from 34,536 to 33,716, a decrease of 820 teachers or 2.4 percent. As a result, with a student/teacher ratio of about 17:1, BC is slightly above the Canadian average as reported by Statistics Canada. During this same period the number of administrators remained relatively constant at 3,170, although the composition changed with the increasing number of females in public school administration, a group that includes directors and supervisors of instruction, teaching consultants and coordinators, testing and assessment specialists, as well as principals and vice-principals. Over the past decade, female participation in such administrative cohorts has risen considerably from 37 percent to 49 percent.[31]

Table 10: School District Overview, Five Largest and Smallest by Number of Students

School District		Number of Schools	Number of Students	Operating Grant per FTE*	Number of Teachers	Number of Administrators
36	Surrey	127	66,100	6,622	3,737	278
39	Vancouver	113	60,945	6,842	3,431	310
43	Coquitlam	74	32,812	6,548	1,884	133
41	Burnaby	56	25,576	6,557	1,518	101
38	Richmond	51	23,509	6,712	1,312	145
10	Arrow Lakes	5	668	10,360	45	4
92	Nisga'a	4	628	12,838	40	8
84	Vancouver Isl. West	5	466	13,525	35	6
49	Central Coast	5	312	16,482	27	5
87	Stikine	4	301	18,936	22	4
All Public		1,662	599,505	7,093	33,716	3,170
All Independent		355	66,136	n/a	n/a	n/a

Source: BC Ministry of Education, 2005/06 Summary of Key Information Note: *District allocations exclude distribution of holdback for mid-year special needs enrolment

At the school district level, the 59 geographically-defined school boards, along with the 60th board responsible for French schools, are governed by 420 elected trustees. Among the major responsibilities of the trustees is to reflect community values and concerns in assuring the accountability of senior school administrators to the local publics they serve. Board members also shoulder a significant decision-making responsibility over "budgets, buildings and busing" (the so-called 3 Bs) in addition to educational matters.

Although the administration of K-12 schooling is generally decentralized through the operations of locally-elected school boards and their officials, the overall responsibility for policy

development, curriculum development, standards, graduation requirements, and the size of budgets for operational and capital funding is centralized in the Ministry of Education. The Ministry distributes most of a total operational budget of just over $4 billion ($4.055b) to school districts largely on the basis of formula funding, although a portion is reserved to support special initiatives. Full Time Equivalent student funding (FTE) is currently just over $7,200. Nevertheless, considerable variation exists in the operating grants per funded FTE by school district. In 2005/06, Lower Mainland districts such as Coquitlam and Maple Ridge-Pitt Meadows received $6,548 and $6,567 respectively while districts such as Stikine and Central Coast received $18,936 and $16,482 per full-time equivalent enrolment, as detailed in Table 10 above. Such differences reflect the higher cost structures that prevail in small, rural, and northern districts.[32]

The Ministry was also responsible for distributing a capital budget of $149 million in 2005/06 (well below the capital budget levels of previous years) and overseeing a major project of seismic upgrades for which $1.5 billion has been earmarked over a 15-year period. Under the current system, the Ministry is authorized to approve construction projects at various pre- and post-tender stages, as well as to carry and to manage the capital debt. Construction, however, is managed at the school district level, as is procurement and other related activities.

Labour relations have also become recently centralized through the agencies of the British Columbia Teachers' Federation, representing teachers (excluding principals and vice-principals who have their own association, as do the superintendents) and a public sector employers association, representing school boards and the government. As a consequence, individual school boards now have little involvement in labour issues and work within the requirements of centrally negotiated contracts.

This centralized-decentralized governance and management system is the norm in Canada: British Columbia is in no way exceptional. The broad outline of the governance system is not static and has changed somewhat over time. For example the number of school districts has been reduced from 830 in 1932 to 89 by 1947, 77 by 1971, and 60 today (including the Francophone Authority). Other changes have occurred also. For example, during this period, school boards have lost their taxing authority, thereby becoming almost entirely dependent on provincial government funding. One justification for direct government funding is to ensure an equitable distribution of financial resources over a highly disparate collection of school districts. However, some claim that equity is not being achieved by virtue of the ability of the urban school districts to raise money through fundraising activities and from such entrepreneurial ventures as educating international students, opportunities that poorer rural school districts generally do not have. While financial authority has gravitated to the Ministry and labour negotiations to a central employer's association, other changes have augmented local responsibilities and power. For example, the senior management of district schools, once a Ministry responsibility in the days of the school inspectors, has gravitated to school districts who are now autonomous in appointing their own superintendents and other

educational managers.

Although this system generally produces good results in terms of scholastic performance (such as PISA and SAIP), it is not without its problems. An ungenerous characterization might describe it is a system in name only, consisting of a loose collection of interlocking autonomies, sometimes interacting amicably but more often represented by fragmented collectivities (unions and various associations including those for trustees, superintendents, principals and vice-principals, parents, Aboriginals), each defending or advocating their own special interests, all justified in the name of educational quality and for the "sake of the kids." The system is held together by a common curriculum, defined standards, and highly qualified professional teachers.

A complex and diverse system presents opportunities for situational leadership, but as we noted earlier, the exercise of leadership is not always easy or straightforward. In a centralized/decentralized governance and administrative system where individual actions are constrained by local and provincial rules and regulations, as well as by labour agreements, leadership is risky and difficult. Principals, for instance, are expected to be school leaders, but they function without the authority to select teachers when openings occur in the schools because seniority trumps all other qualifications within the framework of the labour agreement. Nor do principals generally control district time or resources for teachers' professional development. Such control in many instances rests with the teachers. As a result, principals operate without the tools to change the methodologies or priorities of the teachers they supervise. To be sure, principals occasionally find ways to work around these constraints, but this seldom happens without a struggle and usually with little recognition or reward. Also, principals are rewarded based on school size leading to a situation where smaller schools serving mainly disadvantaged children have both entry level and relatively inexperienced principals and a high turnover of both principals and teachers. Pressing public and parental demands for schools to be everything to everybody and to fulfill a broad social as well as educational agenda likewise compound the problems of setting priorities and making decisions.

Perhaps an ungenerous characterization of BC's education system is that it is an education system in name only. It consists of a loose collection of interlocking autonomies, sometimes interacting amicably but often not, organized into fragmented collectivities (unions and various associations including those for trustees, superintendents, principals and vice-principals, parents, First Nations), each defending or advocating something, often different things, all in the name of educational quality and for the "sake of the kids". The system is held together by a common curriculum, defined standards, and highly qualified professional teachers.

To the extent that our ungenerous characterization of the system is accurate, there is an obvious need to bring the various educational interests into concert and toward more collegial notions about partnerships and cooperation. Recently, the Ministry of Education has brought key educational actors together in an Education Roundtable tasked with forging a common vision and strategy for public education's future development in the province. This initiative is bold, timely, and necessary, but its chances for success are still not clear. However, our discussions with key participants gave us a sense that there is a good deal of common ground and a willingness to change in positive ways. It is to be hoped that this report will assist this

process by pointing to areas where such changes would most greatly impact the system by improving our social and economic well being through education.

Momentum for Change: A Case Study of the ACE IT Program

A good example of the creative initiatives found within the BC provincial education system is the Accelerated Enrollment in Industry Training (ACE IT) program.[33] Through this program, students can take courses that give them dual credits: credits toward high school graduation as well as credits toward one or more levels of apprenticeship and technical training at a post-secondary institution. Students are registered with the Industry Training Authority (ITA), but the actual program is developed and offered as a partnership arrangement between a school district and either a public or private post-secondary institution. Employers also participate by serving on advisory committees, donating equipment and materials to the schools, and creating work opportunities for students (although work-based training is an optional element of the program). Based on a successful school-to-work pilot project in 2004, ACE IT became an officially recognized and available program in 2005 and has since grown vigorously. As of the end of May 2006, more than 2,500 students have registered in ACE IT. A recent update indicates that 47 school districts are now involved, as are most colleges and university colleges. The program currently covers 20 different trades.

The ACE IT program is supported by modest incentive funding to the participating school districts paid in installments as students enroll in the program, complete it, and attain a stipulated amount of work-place experience. How school districts spend the money, the nature of their partnership with colleges, the compensation paid to students during work experiences, and the costs of college tuition fees are all variables that change on an institution-to-institution basis. Sufficient flexibility in this program allows these arrangements to be worked out at local levels, thereby producing diverse implementation strategies and arrangements. Notwithstanding the voluntary nature of the program for students, school districts, colleges, private training institutes, and employers alike there is a growing buy-in from all parties and this new and creative program is working its way into a high school curriculum that has been historically resistant to change.

A recent review of the ACE IT program found: the availability of the program caused 18 percent of its participants to consider a career in the trades for the first time; parents of participating students overwhelmingly supported the program; participating employers and colleges rated the students highly; and, based on unsolicited responses, 11 percent of students reported that without the program they would have dropped out of school.[34]

The ACE IT program is the newest addition to trades and technical training programs offered within the BC public education system. As reported in the 2005/06 Ministry of Education Service Plan, 3,357 students were participating in industry training programs, including the Secondary School Apprenticeship Program, Career Technical Centre Partnerships and the ACE IT program, up from 2,549 the year before, an increase just under 28 percent.[35] This increase represents a welcome turnaround in an educational system that has been retreating

from vocational education since the late 1960s or early 1970s. Despite admonitions contained in the 1988 Royal Commission report to ramp up curricular options for "practically minded students," trades and technical education has fallen below the radar of program developers and policy makers. As the Royal Commission put it - "no area of the school program requires as much attention or reform as does that of the senior secondary school."[36] Secondary education, the Commission advised, was far too focused on the academic disciplines, too directed by the singular goal of preparing students for university entrance, and too limited in scope and options. To redress this imbalance, the Commission recommended: "that after students have successfully completed Grade 10, and at the same time as they are taking the core curriculum subjects, they be considered eligible for entry into career programs offered at community colleges, vocational institutes, or authorized vocational-training institutions in British Columbia."[37]

In the almost two decades since completion of the Royal Commission's work, the place of trades training has been further reduced in British Columbia's high schools. Today, facilities for trade and technical education are unevenly scattered throughout the province. Few high schools, in fact, can boast of vibrant technical education programs and, even among the schools that offer vocational programs as pathways to graduation, most are marked by outmoded technical resources. Among the reasons given to explain this retreat are: the cost of maintaining shops and keeping high school trades programs abreast of rapid changes in manufacturing technologies; parental attitudes that place a higher social and economic value on a university degree; the stigma attached to vocational programs in the schools; and, the fact that few professional educators have much knowledge or experience with technical education or the trades. Trades and technical education also suffer because high school teachers and counsellors come principally from academic backgrounds and, consequently, few are familiar with the realities of modern workplaces or with the employment opportunities vocational education affords. Also, teacher certification standards inhibit tradespeople from entering the teaching profession.

There are signs, however, that attitudes are changing. In a recent review of the ACE IT program there is the observation that:

> Two years ago high schools were downsizing shop facilities and converting shops into computer labs or performing arts spaces. During the current review, schools were ramping up trades programs and up-dating/expanding shop facilities. It would appear that the constant reporting of skills shortages in the trades and programs such as ACE IT and SSA (the Secondary School Apprenticeship program) have contributed to this change in attitude towards trades training.[38]

Also contributing to this change in attitude is the blitz campaign mounted by the Business Council of BC to promote "The Third Option," an expression encompassing non-university post-secondary education.[39] A recent outcome of these changing public attitudes is the replacement of the Riverside Trades, Training and Career Centre in Mission with a new facility offering more trades with more modern technologies.

Certain other features of the ACE IT initiative deserve mention. First, the program provides an attractive alternative pathway to those high school students who are vocationally-minded and who have the relevant aptitudes. In this regard, it should be understood that today's highly technological society requires students in the trades to have literacy and numeracy competencies far beyond the competencies required a generation ago. Second, the ACE IT program is primarily based on partnerships involving individual secondary schools, school districts, public colleges and university colleges, institutes such as BCIT, private training institutes, and employers. Such partnerships provide platforms that allow students to transcend the boundaries of the standard high school curriculum through participation in post-secondary programs. Finally, the fact that ACE IT is fueled by incentive funding encourages schools, school districts, and colleges to participate.

On the negative side, it has been noted that because part of the incentive payment provided by the ITA is withheld pending successful completion of the program, schools tend to select those students most likely to succeed in the program, not those for whom a trades program might better enable them to succeed. There is also the claim that because funding goes to the school districts, yet the program requires local college participation, cost-sharing agreements between colleges and school districts are sometimes difficult to achieve. Even where these difficulties have been overcome, there is still a concern that the funding is insufficient to cover the number of weeks required for students to achieve their initial trades' certification with program integrity. And where portions of the program are offered at the secondary school level, there is a concern that teachers who sometimes lack the appropriate qualifications to provide the training compounded by inadequate facilities lead to a wide variation of training standards throughout the province, raising safety concerns about inadequately trained students entering the workplace. Sometimes this alleged variation in standards impedes the easy transition of ACE IT students from high school into second year college trades programs. Yet despite these criticisms, there is a general sense that the partnership model involving secondary schools and colleges exemplified by ACE IT is a potent direction for public education in the province to develop further.

The ACE IT program is not entirely unique. During the course of this educational review for the BC Progress Board, positive comments have also been made about the trades training initiative in northeastern BC supported by school districts, Northern Lights College, and various companies in the oil and gas business, and about strong school district/post-secondary institutional interactions in the Nicola-Thompson region, in the Kootenays, on the Island, in the College of New Caledonia region, and elsewhere. All these programs appear to have originated from strong personal commitments of secondary and post-secondary educational leaders to bridge the secondary/post-secondary divide in the interest of improving student opportunities for learning in high schools, college and university college settings. Whatever their genesis, and whatever the motivation behind them, such partnerships deserve further encouragement and support for several reasons: notably because BC desperately needs trades people; because such arrangements give "practically-minded students"

In the almost two decades since the completion of the Royal Commission Report, as the majority of respondents for this study agreed, trades training has been in retreat in British Columbia's high schools.

more choice; and, because the vocational and applied academic aspirations of these students are as legitimate to foster and encourage as the aspirations of students who regard themselves as university bound. So much the better if such partnerships also reduce the drop out rate and improve the graduation rate, but this should not be regarded as the primary objective of educational and training programs.

Accordingly, improving opportunities for trades and technical education throughout the province should be a government priority of the highest order. Such an effort will probably involve rethinking what we expect of secondary education and loosening the influence universities exercise over the contents of the high school curriculum. Certainly, it is worth acknowledging that trades and technical jobs have become far less manual, far more skill-based, and far more knowledge intensive in recent decades. Governments at both provincial and local levels should communicate the importance of trades and technical education to society and promote the vision of a high school curriculum comprised both of high quality academic as well as high-quality trades and technical options offered in partnership with post-secondary institutions. Only through such developments can the province develop the broad intellectual, scientific and technical competencies it requires for its social and economic development.

V. FUTURE DIRECTIONS

Momentum for positive change certainly may be found within the British Columbian public educational system along with a system-wide commitment to build upon an established record of excellence. Although some disagreement may be discerned among various actors as to what strategies are best suited to improve different educational outcomes, in particular a higher graduation rate, there is general agreement that action is needed to ensure that all students, especially those from the most disadvantaged circumstances, are given every chance to succeed.

Planning for Student Success School by School

In July 2002, the Government of British Columbia implemented an Accountability Framework[40] to guide the public education system. This framework attempts to focus the attention of both school districts and individual schools on improving student and school performance as measured by such standard tests as the FSAs. Each school, through the agency of a school planning council, develops an annual plan which is subsequently incorporated into a school district accountability contract. The contract identifies the main characteristics of the school district in order to establish an appropriate context for interpreting test scores as well as for understanding the school district's particular approach to planning. The contract sets out goals, such as improved literacy as measured by FSA results at the Grade 4 and Grade 7 levels. More importantly, it spells out in detail the strategies the district is adopting to improve educational outcomes. It also records improvements or setbacks year by year within an overall accountability reporting structure.

School district accountability contracts generally strive to achieve similar goals, notably: improved literacy, improved numeracy, better outcomes for Aboriginal students, and a safe and positive school social environment. This consistency of district contracts and school growth plans

exposes the process to the criticism that goals and targets are essentially dictated by the Ministry and that schools and school districts enjoy little scope in setting their own planning priorities. The accountability contracts reveal, however, that, while there is consistency in goals, there is also wide variation in the strategies adopted to achieve these goals. Taken as a whole, the contracts are highly informative about the multiple challenges facing provincial educators and offer valuable information about the range of intervention strategies used to improve overall performance.

The Accountability Framework involves a triennial review of school districts by a team of experts led by an outside superintendent. These reviews identify perceived strengths and weaknesses in school district performance and recommend remedial actions. A sampling of school district accountability contracts indicates that the results of these triennial reviews become public information and are used to shape subsequent strategies to address the problems identified.

Several features of the planning-accountability-review process merit special mention. The first is that the process is new and is only now beginning to show its potential. Many schools and school districts took the process seriously from the start and have used it in a rigorous, intelligent, and purposeful manner to identify problems, search for solutions, and work to improve the educational experience and success of their students. Others, however, either through a lack of resources or skepticism about the process, did not. At present, meaningful participation is becoming more standard throughout the province and there is a sense that the process, though new, is becoming the established way of doing business in public education. It is to be hoped that the leaders of the BC Teachers' Federation will also come to this conclusion and encourage their members to participate in the process and to contribute their support, insights, and advice. To achieve this end, government should consider increasing teacher representation on school planning councils.

A second feature of the planning-accountability-review process is the use of standard test results, such as the Early Development Instrument (EDI)[41] used at the point when students first enter kindergarten, FSA test results for Grade 4 and Grade 7 students, and student evaluations submitted by classroom teachers in order to inform decision making and practice. By using multiple sources of complementary data, sensitively interpreted, school and school district councils can measure both school and individual student progress over time. Through this means, they can also evaluate the success of intervention strategies and pedagogical innovations used by teachers. In short, the systematic and disciplined use of data is helping to create the foundations for improved evidence-based educational practice in BC. A recent survey of Canadian attitudes towards learning by Statistics Canada shows that there is strong public support across Canada for the use of such standard tests as a means of holding public education accountable to the people it serves.[42]

A third feature of the accountability process is that it involves parents at the school level, trustees at the school district level, and Aboriginal leaders in those cases where school districts have entered into Aboriginal Education Enhancement Agreements. It also involves the public at large through the dissemination of materials available on the Ministry of Education website and, otherwise, at district and school levels. Involved parents and Aboriginal leaders place an enormously high value on having data shared with them so they can fully appreciate how their students and schools are doing. Involved parents and Aboriginal communities likewise appreciate the opportunity to engage in discussions and lend their support to the improvement of edu-

cational outcomes. Educational research shows that engaged parents, knowledgeable about their offspring's learning record, play a crucial role in ensuring individual student success.[43] In the case of Aboriginal students who have a strong sense of community, the same undoubtedly holds true for engaged communities

Suggestion 1: The Accountability Framework, and its component parts – school growth plans, school district accountability contracts, triennial reviews, and Aboriginal education enhancement agreements – have become vital tools for educational development in BC. We urge the Ministry and the Government to stay the course and to expand upon the system of using information in an open and public way to improve education in the province.

The question then becomes: how can the Accountability Framework be better utilized? The crux of the issue here is appropriate follow-up when and where significant problems are revealed and especially where performance levels fall below a level of minimum acceptability. Currently, Government enjoys little influence and has little clout to address problem teachers, problem schools, or problem school districts. The general inability of Government and, indeed, local school districts to remove unsatisfactory teachers from classrooms is particularly difficult because the quality of instruction is the single most important variable in determining student performance. As matters stand, the task of fixing incompetent teachers or poorly performing schools depends upon the cooperation of all parties, something that is not always forthcoming. Certainly, it is less than an ideal situation.

Within individual school districts, various strategies are being employed to address the problems of underperforming schools and children who are disadvantaged. Districts can also receive outside assistance available through agencies such as the BC Leadership Council on Education. We learned of many examples of bold and successful intervention strategies being employed here in BC and elsewhere in Canada. The Turnaround Teams Program recently adopted by the Province of Ontario, for example, targets additional resources to low performing schools for the purposes of:

- Identifying strengths and weaknesses in the school's instructional practices;
- Sharing successful instructional approaches, assessment and leadership strategies; and,
- Providing ongoing mentoring and support that addresses the unique challenges of each school.[44]

Without going into detail, successful intervention programs: direct resources to the most difficult problem-cases; engage teachers, school administrators, and parents in the common enterprise of educational improvement; use research properly to analyze and interpret data and to assess the success of experiments in new pedagogies; and, are sustained over time to ensure that improvements become built into the practices and cultures of the school districts, schools, and the communities associated with them. Good teaching is essential to good education and there are many outstanding teachers, principals and superintendents in the province who can assist others to develop their skills and deal with difficult classroom challenges and to ensure good school management.

Suggestion 2: Through the Accountability Framework, BC has established strong foundations for the development of intervention strategies to improve school and classroom performance. We recommend that such strategies, possibly delivered through a third party agency independent of the Ministry of Education, be developed and implemented as soon as possible.

Leadership in Literacy

Proposed directions for positive change within the BC educational system have also come from the work of the Premier's Advisory Panel on Literacy through their interim report, entitled, *Literacy and lifelong Learning in BC: A Legacy for Leadership*, and their final report submitted in April, 2006.

The panel stresses the importance of literacy for the province as a whole as well as for individual citizens. It appropriately focuses attention on children who enter kindergarten already with literacy deficits and whose problems, if not immediately and effectively addressed, will cause them to fall progressively behind their peers in the development of their cognitive skills as they advance through the elementary school grades. It also underlines the problem of adult literacy, noting that approximately 42 percent of adults in the province have low literacy skills. To address these problems, the panel makes a number of recommendations, pre-eminent among which is the need to create a strong centre of leadership for the literacy file within government and the related need to better co-ordinate the various literacy-related activities occurring across a number of government ministries to ensure development of a coherent and effective set of evidence-based implementation strategies.

The panel praises the Government of British Columbia for initial steps taken in response to its interim report, including the creation of a senior level Literacy Unit within the Ministry of Education and of an inter-ministerial committee on literacy. It also notes the work of the Deputy Ministers of the Social Ministries, of the Legislature's Standing Committee on Education, of the Ministry of Advanced Education, of Literacy Now (a component of the 2010 Legacies Now program), and of the Literacy Unit within the Ministry of Education. Yet, despite evidence of the thought, energy and resources being directed to the literacy issue, the panel remains of the view that:

> Literacy must have a much higher priority within the Provincial government, the Ministries of Education and Advanced Education and other ministries. Immediate and strong Provincial leadership, action and momentum are essential if we are to meet the overall goal of British Columbia becoming the best educated, most literate jurisdiction on the continent.[45]

Literacy has become the principal rallying point for much of the educational improvement activity currently taking place in British Columbia. Adopting a "life stages" approach to the problem of low literacy rates, the Panel identifies three opportunities for intervention: for children from the time of birth to Grade Three, youth from Grade 4 to Grade 12 and, finally, adults. Priority should be given to early intervention programs because research has shown they are generally more effective, less expensive, and serve to reduce the need for remedial programs later on in life.

Impressive progress is being made at the pre-school and early school years stage with the expansion of early childhood education programs, the utilization of the EDI (Early Development Initiative) test when children enter kindergarten, and the implementation of intensive reading programs for students entering school with reading deficiencies. As the Panel on Literacy notes:

> There is unassailable research about the critical role of the "early years" in laying the foundation for literacy and lifelong learning – and the learning needs and interests of children are clearly on the public radar screen. In local communities across the province, much has been done to implement appropriate screening processes, develop family resource and literacy programs and organizations, focus attention and reallocate resources in elementary schools, expand professional competencies, adopt best practice research and knowledge, and build partnerships between elementary schools, community organizations, and parents. Much is yet to be done but there is a strong base on which to build.[46]

This review has discovered similar evidence of widespread activity to address the literacy needs of children at early stages of their development.

Early literacy gains, however, can be lost, particularly at the stage of transition from elementary to high school. This is a second point when intervention strategies need to be developed. It is also a critical point when various social agencies and ministries of government can cooperate to identify youth at risk and to work with them, their families, as well as school and community agencies to devise strategies both for individual students and for groups. As noted previously, recent educational initiatives adopted by the Province of Ontario to increase high school graduation rates to 85 percent are targeted to students at this transition point in their school careers.[47] In BC, Grade 4 and Grade 7 FSA scores, along with a range of internal assessments are also being used to identify academically underperforming youth. Where schools and school districts lack resources to analyze these and other data sources and to implement improvement strategies, they should be granted access to Ministry of Education-supported turnaround teams, as recommended above, to assist them.

Various literacy programs for adults are offered at local levels through school districts, local colleges, and various community agencies including unions and industries. Adult literacy programs sometimes produce dysfunctional competition for student enrolment among these public institutions that results in a duplication of programming and expenditures that may not lead to the best results at the most efficient cost. On the other hand, there is an argument that some adult students would not return to high school to improve their literacy due to negative experiences earlier in their lives. Therefore, college-based programs are important for promoting adult literacy.

Suggestion 3: ***The Ministry of Education now carries primary responsibility for the literacy agenda recently adopted by the province. To ensure effective implementation at the local level of a broad range of initiatives to promote and improve literacy, school districts should be given primary oversight responsibility for educational programming for the pre-school years, K-12, and adult education within their districts, the latter jointly with their regional college or university college board.***

District boards should be mandated to perform this educational oversight role for the purposes of identifying educational service gaps, working in partnership with others, both public and accredited private educational providers, to fill gaps in educational provision and, where necessary, to augment standard K-12 programming in order to provide services that their districts sorely need and lack. They should also strive to make schools into multi-purpose facilities that engage the community as a whole.

School district officials and elected trustees should be directed to become the educational leaders within their regions: working to inform the public of educational successes, problems, and needs; working with other agencies to adopt the most regionally-relevant strategies to foster and promote education; and, working with government and with other sectors in the economy to secure the resources needed to address problem areas, including the use of specialized "turnaround" or intervention teams.

Regionalization

The K-12 public education system in British Columbia is organized into 60 school districts, 59 of which have a defined geographical region within which to conduct their legislated responsibilities. As mentioned above, the province has moved from a maximum of 830 school districts in 1932 to 60 today. At the heart of the system is the principle of local accountability through elected trustees for the provision of public education, for ensuring local access to educational services, for providing a safe environment for schooling, and for the development and maintenance of schools and their properties.

Public education in the province is also organized at the college and university college level into 15 defined geographical regions. These institutions are mandated to provide post-secondary education and training, the first two years of university baccalaureate programs, applied degree programs, adult basic education and continuing education programs. In addition, university colleges are mandated to provide applied masters programs. Thompson Rivers University, a special purpose university, is also mandated to serve a defined geographical region. The colleges are governed by appointed boards drawn by convention, not by legislation, from citizens who live in the respective college region.

School districts, colleges, and university colleges serve different, albeit overlapping, jurisdictions, the one more local and community-based, the other more regional. They also have different governance structures; however, both share the common features of being connected to a defined geographical area and being accountable through a governance structure to the local inhabitants of their respective regions for the provision of educational services. Regulated by the *Schools Act* and the *College and Institutes Act*, these institutions are extensions of their respected Ministries (Education and Advanced Education) and are delegated to provide educational services within their regions. They are also required to share certain services, such as the networking system provided through the Public Learning Network (PLNet). Many instances can be found of school districts and colleges working together to expand program options through initiatives like ACE IT. But otherwise they operate as separate autonomies, disconnected from one another, designed to work in serial fashion, and typically only loosely coupled in their operations and objectives.

Is this system still the most appropriate today? Does it best serve the needs of students or the needs of an economy that must better promote post-secondary education to secure the highly skilled and well-educated workforce that the province needs? These are among the questions directly asked for the purpose of this review.

> Given emerging economic demands for highly educated and skilled workers, a decade or more of declining enrolments in schools, and the intensification of competition for public and human resources, it is timely, indeed, to examine the capacity of our educational organizations to meet the challenges we face. The K-12 school structure that has served as our chief educational platform since the nineteenth century is, perhaps, no longer entirely appropriate. We should consider the possibility of a larger structure to acknowledge and symbolize the increasing importance of post-secondary education in our social and economic lives. A new age requires new institutions to create new and greater opportunities for students, as well as new educational synergies that will ensure our social well being and economic prosperity for decades to come.

Our interviewees were asked: "Given the increasing importance of post-secondary education to the province's economic and social life, could the expansion of school-college-university partnerships provide a useful organizational platform to integrate educational programs and services in the years ahead?" As a follow-up they were asked: "Is British Columbia's current educational governance and administrative system structurally adequate to co-ordinate the programs and services necessary to make the province the best educated, most literate jurisdiction in North America?" In answer to the first question, the weight of opinion was that there should be more integration at the secondary and post-secondary levels to make the intersection of these two separate educational strata more seamless and to broaden program options earlier for high school students seeking entry to trades training and for gifted students seeking the challenge of advanced college- and university-level courses. In answer to the second question, there was no consensus of opinion save for the preponderant view that fundamental organizational change is worthy of serious consideration.

An overarching plan is obviously required to connect K-12 and post-secondary institutions, particularly regionally-based colleges and university colleges, in more effective ways in order to: allow more flexible transition arrangements among organizations; encourage new partnerships and resource sharing among school districts and other institutions; and, increase opportunities for students to advance more quickly from high school to college and university in subjects where they demonstrate competence. Such a plan will no doubt necessitate a reconsideration of fundamental questions such as where and how schools, colleges, universities, and trades and technical institutions should connect, as well as how students might obtain and use credit for coursework or, even, work experience in different institutions. In this regard, the government's educational ministries, as well as the key educational actors and institutions in the province, have obvious and important roles to play in creating more open and less restrictive practices.

One suggestion that emerged during the course of this review involved the creation of Regional Educational Councils, educational bodies that would be centred on defined college and university college (including Thompson Rivers University) regions, with a management structure that would include the respective college or university college president, along with the superintendents of the school districts encompassed by the larger college or university college region. In the case of the Greater Vancouver Region, some consolidation of college regions would help expedite such

reorganization. This model is premised on the retention of the current School Districts and College Regions. In fact, to further enhance the role of School Boards as educational leaders at the community level, it was suggested that a case could be made for more, rather than fewer, School Districts. However, an increase in the number of School Districts would require change in the functions they currently perform (see discussion on page 36).

For governance purposes, a representative from each of the school districts and college or university college board, could meet to oversee the work of the management team. Other representation could be added to allow for a regional economic development presence on the Council. Such Councils could be mandated to expand secondary/post-secondary programming either through dual credit programs, streaming arrangements that allow students a dual registration status to ease their transition to post secondary education, or other such integrative measures. Accountabilities for developing programs would remain with the school districts through the Accountability Framework and with the colleges and university colleges through their own planning and accountability processes with government. Local university participation would be optional, although desirable, and would bring with it the active participation of the university president or vice-president academic in the management team and of a university governor on the governance council.

Some indications of support for this approach were evident. But, in general, our interviewees expressed caution when considering fundamental organizational change. Their caution is entirely understandable given the disruptions, dislocations and public debate often evoked by proposals for organizational change. But the fact remains, post-secondary education is becoming the basic educational requirement for the twenty-first century and the current organization of education in the province perpetuates difficult barriers between secondary and post-secondary education that need to be removed in the interests of the province's educational and economic development.

Suggestion 4: This report recommends that the Ministries of Education and Advanced Education, following upon the release of this report and the conclusion of the Campus 2020 review, consider the development of new organizational structures to integrate secondary and post-secondary educational programming in the interest of easing transitions for students from secondary to post-secondary programs, as well as expanding post-secondary programming options available to eligible secondary school students, especially those interested in trades and technical careers, at earlier points in their secondary schooling. In particular, the Ministries should examine a closer integration of school districts and college or university college regions for the purpose of achieving a better integration of secondary and post-secondary educational programming.

A Few Words on Data

Grade 12 graduation rates are an important measure of the ability of the K-12 system to prepare students for the post-secondary education most will need to secure the kinds of jobs the economy is creating. Equally important are the transition rates from secondary to post-secondary programs. According to a recently completed Student Transitions Project, 67 percent of the

2001/02 high school graduating class were engaged in BC post-secondary programs in 2004/05, three years later.[48] This transition rate is probably higher if student registrations in post-secondary private institutions and out-of-province colleges and universities are included. However, when considered within the context of the number of Grade Eight students who continue onto post-secondary education, the number would undoubtedly be lower and may better reflect the challenges the BC education system faces in trying to move students from the K-12 system into post-secondary education.

To develop a better understanding of the overall transition rate from secondary schools to post-secondary institutions, government should make a concerted effort to collect, analyze, and report on data from different education systems. What is required is a consistent, systematic approach to data collection and analysis because such an approach provides valid data at predictable times on an ongoing basis and can be used by government and institutions to measure progress in student transitions. Fortunately, system-wide data is more available now than in the past because of (a) advances in technology which significantly reduce the effort required for storing, submission, and comparison of data; (b) the universal assignment of the Personal Education Number (PEN) to all registered students in the secondary system and public post-secondary system that allows for tracking of students over time; and (c) the Student Transitions Project (STP), which answers important research questions on student mobility with the full cooperation of the Ministries of Education and Advanced Education and the public post-secondary institutions in BC. The data bank being built by the STP can answer, on an annual basis, questions about the education paths of both high school graduates and non-completers, with many in this latter group moving on to post-secondary studies without a Grade 12 credential. Such data can be used both as a baseline and as an indication of changes in mobility patterns over time.

Government can ensure greater success of a secondary to post-secondary transition initiative at the provincial and/or regional level by closely reviewing the successes and shortcomings of past provincial initiatives in this area. In the mid- to late-1990s, there was a major focus by government on the importance of increased transitions between the secondary and post-secondary systems and considerable dollars were expended to encourage such transitions. For instance, funds were spent on developing Career Technical Centres (CTCs) as joint training facilities for students who were enrolled in high school and college programming simultaneously. The Centre for Curriculum, Transfer, and Technology (C2T2) was also funded to undertake a number of projects. Yet funding was cut for C2T2 projects and the emphasis on CTCs appears to have waned. We may now ask: What needs to be done differently to develop a long-term, sustainable approach to improved secondary/post-secondary transitions? The type of organizational change suggested above to facilitate closer interaction between the secondary and post-secondary systems in order to create a greater variety of programs for students might be one answer to this pressing question.

At the post-secondary level, British Columbia leads the nation in facilitating transfers between and among the colleges, university colleges, universities and institutes that comprise the publicly funded post-secondary system. The agency responsible for this program is the BC Council on Admissions and Transfers (BC CAT). The Council has now been assigned the task of integrating accredited private post-secondary institutions into this nexus of institution by institution, program

by program, articulation and laddering agreements. In the past, the province provided funding to enable secondary school representation on the BC CAT post-secondary articulation committees, funding that was subsequently cut. The articulation committees are discipline-based committees that meet at least once a year to discuss curriculum matters. There was secondary school representation on 64 of these 65 committees providing the only venue in BC by which instructors and faculty from both the secondary and post-secondary systems could meet to discuss curricular issues. The end result of such discussions was an increased ability to ensure that secondary curriculum was indeed preparing students for success in post-secondary studies. Restoring such funding constitutes only a small investment in what could be a large gain in improving student transitions in a sustainable way.

Improved sharing of information and data across the strata of public education in British Columbia would also provide for better planning and programming at all levels. Similarly, improved sharing of information and data across the social ministries of the government would also improve planning and the development of intervention strategies within schools, within college and school district regions, and within the province as a whole. Government has assigned a high priority to achieving a better integration of data and information across departments and Ministries. The next step, from the perspective of the province's public education system, is to develop the expertise within the system, and particularly at the level of the school districts and college regions, for the data to be analyzed, interpreted, and applied in a rigorous fashion where the results of intervention programs and new pedagogical approaches can be properly evaluated.

***Suggestion 5**: The systematic use of test results will assist in the development of a consistent, continuous, coherent, and contextual long-term approach to educational improvement in BC to the benefit of the province and to individual learners alike. We encourage the government to continue its efforts to integrate data collection, sharing, and analysis across the departments of government and within the public education system and to develop the relevant expertise for data to be effectively utilized for service improvement.*

The Funding Issue

The final question put to the interviewees for this report was the following:

> Despite an increase in expenditure that rose 12.95 percent over the period 2001 to 2005, a recent StatsCan report indicates that British Columbia's education spending has increased less than that of several other provinces.[49] Has the rate of expenditure affected the quality of programs and services? Are there areas for savings where money could be re-allocated to improve programs and services?

The answers to the questions varied. Some favoured substantial additional spending, particularly on disadvantaged children and youth; some considered current funding levels to be adequate but favoured a greater discretionary spending authority for school administrators; some favoured looking for efficiencies within current spending levels in order to free up monies to address priority educational needs; and some felt that education in BC had been "cut to the bone" and there is no room either for further cuts or significant reallocations of funds.

A recent report from Statistics Canada puts BC's K-12 education expenditures into a comparative context.[50] In terms of total expenditures per student, BC was at the Canadian average in 2003/04, but on the basis of total operating expenditures per student was, at $7,133, just below the Canadian average of $7,342, ranking seventh among the provinces after ranking first in 1997/98. Educator pay in BC is above the Canadian average, but the student/educator ratio of 17.7: 1 is below the Canadian average of 16.0:1. In this regard BC is the only province to show an increase in this ratio between 1997/98 and 2003/04. As a result, BC spends below the Canadian average in terms of total educator spending as a percentage of total operating expenditures (50.5 compared to 53.75) and also as a percentage of total expenditures (42.6 compared to 45.1). On a total population per capita basis, BC also falls below the Canadian average when measured in current dollars ($1,201 compared to $1,332) and also in constant dollars ($997 compared to 1,089), ranking ninth among the provinces in both cases. Likewise the percentage of total government expenditures devoted to K-12 education in BC averages 13.6 percent, again a figure below the Canadian average of 13.9 percent. Yet in terms of total K-12 education expenditures as a percentage of GDP, BC at 3.4 percent is above the Canadian average of 3.3. It is also worth noting that school enrolment as a percentage of the total population in BC is the lowest in Canada, a factor that should be taken into account when interpreting the comparative data on education expenditures.

Recent developments will undoubtedly change the comparisons recorded by Statistics Canada for the period 1997/98 to 2003/04. The five-year agreement with the members of the BC Teachers' Federation signed this year will make educators' salaries in BC even more competitive than they currently are. Recently legislated limitations on classroom size are also affecting staffing levels, thereby reducing the student/educator ratio. To ensure this result, the government increased funding to the school districts by $20 million in 2006/07 to hire 875 additional full-time equivalent staff, including 322 teachers and 220 educational assistants. Additional funding has also been provided to the school districts to meet the needs of students with autism spectrum disorder and to fund a pilot project to deal with children suffering from foetal alcohol spectrum disorder.

Whether the province is investing sufficiently in K-12 public education, therefore, remains a subject open to debate, but what is clearly apparent is that either additional funding or re-allocated funding is needed if the government is to make a concerted effort to promote and provide preschool education programs, to assist disadvantaged students as they enter kindergarten and participate in the early school years, to provide more detailed assessments and tailored programs for "at risk" students transitioning from elementary to high school, and to provide secure and long-term funding incentives to enable school districts and regional colleges and university colleges to better integrate their programs and provide additional options and pathways to students seeking to apply their interests and aptitudes to programs outside the standard high school curriculum.

There is a clear need and opportunity to provide funding strategically, and under rules of strict accountability, to address the critical issues identified in this report if the province is to improve high school graduation rates as well as increase the percentage of learners engaging in post-secondary programs. The funding could come from net additional financial contributions to the K-12 system. Another option would be to preserve real funding levels to school districts with declining enrolments as long as they use the retained money that would normally be lost to fund agreed-

upon strategic initiatives, and as long as those initiatives show positive results over time.

There is also a sense that efficiencies could be achieved by consolidating some of the business and administrative functions of the school districts, notably in the areas of payroll and pension management, purchasing, management information, student scheduling systems, and capital procurement and maintenance either on a broader regional basis or through centralized agencies. By shedding some of these demanding and time-consuming tasks, school districts and their officers and trustees could devote more time and attention to overseeing the broad range of educational services provided in their districts and to work with other institutions and agencies to identify and fill existing gaps and promote new local educational programming options.

Suggestion 6: Government should review current fiscal arrangements relating to the funding of K-12 education in the province in order to fund strategic initiatives intended to achieve better student and system educational outcomes. To this end, the government should review the roles of school districts and their administrative responsibilities to determine where savings might be achieved so that any savings identified are retained within the public education system and used to fund strategic initiatives on a priority basis. Additional funding, or savings from reduced enrolments or achieved through administrative consolidation, should be directed to strategic initiatives such as early childhood education, a school turnaround strategy, enhanced trades education, etc.

Moving forward, it is critical that there be a consistent and sustained focus on improving student outcomes.

VI. CONCLUSION

In recent years a number of important changes have taken place in the management of K-12 education in the province, most notably the introduction of the Accountability Framework. The processes relating to this framework provide a structure and system for iterative planning, for setting educational priorities, for measuring results and identifying successes and problems, and for implementing new programs with an aim to improve overall results. These processes are open and transparent and invite parents and others, particularly Aboriginal communities, to engage with the schools and school districts to improve education for their children and youth.

British Columbians can take great pride in their public education system. On the basis of international and national test results, BC students perform at or close to the top of the class. These outcomes are due in no small measure to the dedication and talent of the province's professional educators and to the rigour and quality of the curriculum that is provided through the Ministry of Education. They are also due to the considerable investment that BC has traditionally made, and is continuing to make, in its educational system. Yet the system can, and must, continue to improve.

The Accountability Framework could become an even more powerful tool for continuously improving public education in BC if enhanced by expanded and improved data analysis and interpretation and supported by effective follow-up actions to triennial school district reviews. For improvement to occur, it is essential that problems be appropriately identified and addressed, effective intervention strategies developed, and results recorded and analyzed. To assist in this

process, specialist teachers organized into intervention or turnaround teams, either at the school district level or through a third- party agency funded by government, could work with teachers to enable them to develop the skills and implement the programs required to address the challenges they face in a long-term and sustainable manner.

A commitment to continuous improvement requires leadership at all levels, but within the structure of the public education system currently in place, leadership must come from school district supervisors and elected trustees. Together they need to be, and be seen to be, the education leaders in their communities, communicating to parents and the public about the challenges they face and the successes they achieve, working with other educators in their regions to identify local gaps in a broad system of lifelong education that extends from children newly born to adults seeking improved literacy skill, or looking for new educational opportunities, and interacting with government to ensure the excellence of the services they provide.

Given emerging economic demands for highly educated and skilled workers, the demographic forecast of a decade or more of declining enrolments in schools, and the intensification of competition for public and human resources, it is timely, indeed, to examine the capacity of our educational organizations to meet the challenges we face. The Government needs seriously to consider new institutional arrangements and structures to create greater opportunities for students, as well as to foster educational synergies that will ensure our social well being and economic prosperity for decades to come. In BC, the regional diversity of the province, not to mention its vast and challenging geography, dictate that new structures to better integrate secondary with post-secondary education be established at the regional level rather than be centralized. Moreover, these regional levels should make sense in terms of existing jurisdictional boundaries and community interactions. The college and university college regions would serve this purpose and provide an appropriate context for broader, regionalized educational planning and program delivery.

In fostering a closer interaction between secondary schools and post-secondary institutions, priority attention needs to be given to promoting trades training. Given the enormous costs of equipping high school shops and keeping them current with rapidly changing technologies, school and school district partnerships with colleges and university colleges, where trades training should flourish and where teaching, facilities, and equipment should be state-of-the-art, would provide a wonderful opportunity to expand trades training and to develop the programmatic context within the secondary schools to orient interested and appropriately talented youth to explore the trades as a career choice.

Partnerships between secondary schools and post-secondary institutions, however, should not focus exclusively on trades training. BC needs, and will continue to need, highly educated citizens - educated to advance the frontiers of knowledge through leading-edge research and to fill vacancies in the professions as teachers, physicians, and social workers, to give but a few broad examples. In fostering a closer interaction between the secondary and post-secondary levels of education in the province, the aim should be to promote education of the highest quality to the greatest number of students in accordance with their interests and aptitudes and to the betterment of their personal lives. If we do this, the economy will be served well as a by-product of achieving individual student success.

Clearly a more encompassing approach to education aimed at maximizing student success and targeted to address current problems of educational underperformance needs an appropriate level of government support and funding. If BC is to become "the best educated, most literate jurisdiction on the continent" public education must be seen as a priority investment an investment for the future, an investment for a sustainable knowledge-based economy, and an investment for a well-educated, democratic, and tolerant civil society. When investing in education, however, governments should not write blank cheques. Government should demand accountability and apply scientific rigour to determine if priority expenditures are producing intended outcomes and improving the educational system overall. They should also ensure that monies are being efficiently spent and that new administrative processes, enabled by the advent of information technologies and software enabled management systems, are not being avoided simply for the sake of maintaining traditional ways of managing the public school system.

> In cultivating a closer connection between secondary and post-secondary, the aim should be to promote education of the highest quality to the greatest number of students in accordance with their interests and aptitudes and to the betterment of their personal lives. If British Columbia embraces this approach, our economy will be better served as a by-product of student success.

In closing, a special thanks to those who consented to be interviewed as part of this review. All shared their views candidly and displayed their passion, and passionate concern, for education in this province. This report attempts to incorporate many of their insights and opinions into a text intended to promote further positive discussion.

Society is dynamic. There have been notable changes in British Columbia's K-12 system as well as in BC's economy and society since the tabling of the Royal Commission report on education in 1988. It is the view of this report that BC's K-12 educational system needs to change and that a momentum and direction for change is already evident. Change is not necessarily good and resistance to change is not necessarily bad. Change without careful consultation is probably doomed to failure, and resistance to change without a sincere consideration of the case for change is indisputably detrimental to societal growth and improvement. By building systematically upon the creativity that is being displayed at all levels by educators applying their knowledge and skills to address the challenges of a complex and changing society, positive change can be achieved and educational outcomes improved. It will take working together for BC to become the most educated and literate jurisdiction on the continent. Working together, rather than at cross-purposes, is something that we, as British Columbians, must do to ensure a better future for our children, our schools, and the province as a whole. After all, it is "for the sake of the kids."

Appendices

A. Board Members, Staff, and Advisory Group Members

Board Members and Staff

Members:

Mr. David Black, Chair
President
Black Press Ltd.

Mr. Herman Driediger
CEO
Driediger Investments Ltd.

Ms. Eva Lee Kwok
Chair & CEO
Amara International Investment Corporation

Ms. Jill Leversage
Managing Director
Corporate and Investment Banking
TD Securities Inc.

Mr. Gerry Martin
Co-Owner
Kra-Mar Investments

Mr. Harry McWatters
President & Founder
Sumac Ridge Estate Winery Ltd.

Dr. Martha Piper
Former President & Vice-Chancellor
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Mr. Jeet Sandhu
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Eddies Countrywide

Ms. Carol W. Seable
President & CEO
Fairmont Hotsprings Resort Ltd.

Mr. Jim Shepherd
President & CEO
Canfor Corporation

Mr. Ken Shields
Chairman of the Board
Raymond James Ltd.

Mr. Mark Shuparski
President
Pacific Capital Investments

Mr. Brian Surerus
President
Surerus Pipeline Inc.

Mr. David A. Thompson
Former Deputy Chairman & CEO
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Mr. Stuart Mackay
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Mr. Helmut Pastrick
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Credit Union Central of British Columbia

B. Consultation Questions[51]

1. British Columbia has set itself the goal of becoming the best-educated, most literate jurisdiction on the continent. The province has also set a target of reaching an 85% graduation rate by 2015, up from a current rate of 79%. Among the educational performance indicators used by British Columbians to mark educational progress are international and national assessments, high school completion, Foundations Skills Assessments (FSA's) and adult and early childhood literacy rates.

   Tables I to III of the Appendix illustrate several examples of where the province stands with respect to student achievement and graduation rates.

   What education performance measures are most useful to you as indicators of British Columbia's education success? What initiatives could be undertaken to improve overall student achievement and graduation rates?

2. Educational performance indicators illustrate considerable diversity in outcomes among districts and sub-populations (ESL, gender, special needs, etc.).

   Tables V to IX of the Appendix include several examples of this diversity.

   What initiatives could be undertaken to improve achievement rates among low performing districts and sub-populations? What groups and/or structures are best positioned to undertake such initiatives?

3. The fact that at least 20% of students in British Columbia still fail to complete high school has profound repercussions for the province's social and economic life. Studies show that non-completing high school students consume a disproportionate share of health, social, and justice system spending. In contrast, each additional year of high school education increases an individual's lifetime earnings by 10 to 14%. Among high school drop-outs, some groups of students are over-represented. Boys drop out at a higher rate than girls, as do aboriginal

youngsters compared to non-aboriginal youngsters.

What should we do that we are not doing to retain students in school, or to create more relevant educational opportunities to reduce drop-out rates? At what point in a student's education are special interventions likely to be most successful?

4. Almost 20 years ago, the Royal Commission on Education pointed out the inadequacy of the high school curriculum for practically minded students and argued that high schools did not "offer something for everyone." The report stated:

   "In British Columbia, we have colleges, institutes, vocational schools, and private training schools which offer the kind of career programs that many students are seeking... We suggest that after students have successfully completed Grade 10, and at the same time as they are taking the core curriculum subjects, they be considered eligible for entry into career programs offered at community colleges, vocational institutes, or authorized private vocational-training institutions in British Columbia. (p.106)"

   Despite human resource shortages in trades and technical careers, 2005-2006 statistics show that only 1,910 of approximately 200,000 secondary students are enrolled in "career technical programs."

   What barriers prevent students from enrolling in these programs? What initiatives should be undertaken to increase the number of trades and technical students? What groups and/or structures are best positioned to undertake such initiatives?

5. New relationships between schools and community partners are evident in many recent aspects of educational development. For example, the province has encouraged schools to partner with community colleges and other organizations to provide programs in trades and technical education. The province has also encouraged schools to accelerate the progress of gifted students through such initiatives as challenge, advanced placement, and directed studies at other institutions such as colleges and universities.

   Given the increasing importance of post-secondary education to the province's economic and social life, could the expansion of school-college-university partnerships provide a useful organizational platform to integrate educational programs and services in the years ahead? Could such partnerships furnish the administrative structures necessary to coordinate various K-12 and K-16 (system-wide and community learning?) initiatives as British Columbia strives to educate its young people to international standards?

6. Is British Columbia's current educational governance and administrative system (the Ministry of Education and 60 school districts) structurally adequate to co-ordinate the programs and services necessary to make the province the best-educated, most literate jurisdiction in North America? If not: What initiatives are required and who should provide leadership in this regard?

7. Despite an increase in expenditure that rose 12.95% over the period 2001 to 2005, a recent StatsCan report indicates that British Columbia's education spending has increased less than that of several other provinces (See Tables X and XI, Appendix). Has the rate of expenditure affected the quality of programs and services? Are there areas for savings where money could be re-allocated to improve programs and services?

C. Consultations

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D. Notes

[1] BC Progress Board (2006), page 17.
[2] Sullivan (1988), page 39.
[3] Ibid, pages 26-28.
[4] See for example: Lee Gunderson, *English-Only Instruction and Immigrant Students in Secondary Schools: A Critical Examination*, Lawrence Erlbaum Associates, Inc., 2007.
[5] Government of BC (2006a), page 13.
[6] Sullivan (1988), page 120.
[7] Government of BC (2006a), page 4.
[8] Ibid, pages 20-21.
[9] Statistics Canada (2004a)
[10] Government of BC (2006a), pages 7-8.
[11] Ibid, pages 46-47.
[12] Sullivan (1988), page 29.
[13] Organization for Economic Cooperation and Development (2005a), page 15.
[14] Ibid, page 14.
[15] Government of BC (2005a), page 8.
[16] Organization for Economic Cooperation and Development (2005a), page 15.
[17] Statistics Canada (2002).
[18] Audas & Willms (2001) and Lee & Burkam (2000).
[19] Ungerleider (2004).

[20] Statistics Canada (2002).
[21] Earl & Torrance (2000).
[22] See for example: Richards & Brzozowski (2006) and Kohen, Lipps, & Hertzman (2006) and St. Pierre & Ricciuti & Rimdzius (2005) and Kohen, Hertzman & Willms (2002).
[23] Organization for Economic Cooperation and Development (2006), page 135.
[24] Lee & Burkam (2000), page 17.
[25] Ibid, page 4.
[26] Audas & Willms, (2001) page 4.
[27] Ibid, page 5.
[28] Statistics Canada (2006b).
[29] Ibid.
[30] Government of BC (2006a), page 9.
[31] Ibid, page 30.
[32] Ibid, page 28.
[33] Industry Training Authority (2006), page 3.
[34] Ibid.
[35] Government of BC (2006b), page 40.
[36] Sullivan (1988), page 104.
[37] Ibid, page 106.
[38] Industry Training Authority (2006), page 2.
[39] Business Council of British Columbia (2003).
[40] See www.bced.gov.bc.ca/policy/policies/accountability_framework.htm.
[41] See www.earlylearning.ubc.ca/mapping/mapping_aboutedi.htm.
[42] Statistics Canada (2006).
[43] The important role of parents is discussed, for example in: Putnam (2000) pages 296-306 and Sui-Chu & Willms (1996).
[44] Raham (2006) and Government of Ontario (2004).
[45] Premier's Advisory Panel on Literacy (2006), page 3.
[46] Premier's Advisory Panel on Literacy (2005), page 12.
[47] Government of Ontario (2006).
[48] Government of BC (2006e), page 1.
[49] Statistics Canada (2006a), page 51.
[50] Ibid.
[51] Data appendices referred to in the following Consultation Questions have been integrated into the main text of the report.

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